

MATHEWS

ent. in main biblis.

Vol. 6, Part 5

OCTOBER, 1923

Number 36

BULLETIN
OF THE
**NATIONAL RESEARCH
COUNCIL**

CATALOGUE OF PUBLISHED BIBLIOGRAPHIES
IN GEOLOGY

1896-1920

COMPILED BY

EDWARD B. MATHEWS

for

Research Information Service
and

Division of Geology and Geography
National Research Council

PUBLISHED BY THE NATIONAL RESEARCH COUNCIL

OF

THE NATIONAL ACADEMY OF SCIENCES
WASHINGTON, D. C.

1923

Announcement Concerning Publications of the National Research Council

The Proceedings of the National Academy of Sciences

is partly supported by the National Research Council which is represented officially on its Editorial Board and Executive Committee. It is open for the publication of papers to members of the National Research Council on the same terms as to members of the National Academy of Sciences.

Subscription rate for the "Proceedings" is \$5 per year. Business address: Home Secretary, National Academy of Sciences, Smithsonian Institution, Washington, D. C.

The Bulletin of the National Research Council

presents contributions from the National Research Council, other than proceedings, for which hitherto no appropriate agencies of publication have existed.

The "Bulletin" is published at irregular intervals. The subscription price, postpaid, is \$5 per volume of approximately 500 pages. Numbers of the "Bulletin" are sold separately at prices based upon the cost of manufacture.

The Reprint and Circular Series of the National Research Council

renders available for purchase, at prices dependent upon the cost of manufacture, papers published or printed by or for the National Research Council.

Orders for the "Bulletin" or the "Reprints and Circulars" of the National Research Council, accompanied by remittance, should be addressed: Publication Office, National Research Council, 1701 Massachusetts Avenue, Washington, D. C.

BULLETIN OF THE NATIONAL RESEARCH COUNCIL

Vol. 6, Part 5

OCTOBER, 1923

Number 36

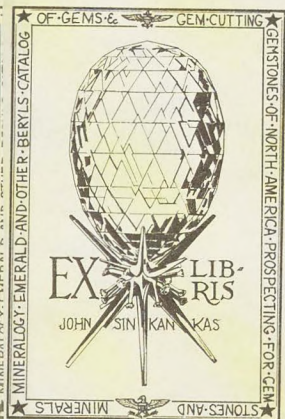
CATALOGUE OF PUBLISHED BIBLIOGRAPHIES IN GEOLOGY

1896-1920

COMPILED BY
EDWARD B. MATHEWS

for

Geological Information Service and Division of Geology and
Geography, National Research Council



CONTENTS

| | PAGE |
|---|------|
| Preface | 3 |
| List of abbreviations | 5 |
| PART I. General bibliographies | |
| Current bibliographies and abstract journals | 17 |
| Indexes of series, official publications, etc. | 18 |
| PART II. Bibliographies of special subjects | 23 |
| PART III. Personal bibliographies and necrologies | 186 |
| Author index | 211 |



PREFACE

The following pages have been prepared as an aid to geologists who need assistance in their survey of the vast body of observations and interpretations already on record. They represent in somewhat simplified form a continuation of the classic work *Catalogue des Bibliographies Géologiques rédigé, avec le concours des membres de la Commission bibliographique du Congrès [géologique international] par Emm. de Margerie, Paris, Gauthier-Villars et Fils, 1896*, which included references to the year 1895. The present work covers the twenty-five years, 1896-1920, and embraces 3699 titles. Like the former publication, the present volume is not a bibliography of geology but simply a catalogue of published Geological Bibliographies. The earlier collection represented the combined efforts of many geologists in various countries for a term of years; the later is a rapid compilation by the author and his efficient collaborator, Miss Grace E. Reed, Librarian of the Geological Department of the Johns Hopkins University, based upon a few libraries in Baltimore and Washington. The project was undertaken for the Research Information Service and the Division of Geology and Geography, National Research Council.

The format of references adopted in de Margerie's Catalogue with the notation of the size of page, differences in pagination, publisher, and certain other details, while highly desirable from a bibliographic standpoint, has not been followed since it would have increased the work of compilation and chances for error manyfold without any compensating gain in usefulness to the average geologist. For like reasons, a similar simplification in classification was also adopted.

The references have been gathered in three parts, each arranged alphabetically with cross references and an index of authors.

Part I includes *General Bibliographies*, Abstract journals, Indexes, and Registers of Periodicals and Society publications, Lists of Publications of Official Surveys when in permanent forms, and Bibliographies and Abstracts issued serially. This list deals with publications of interest to geologists. No attempt has been made to include such works as *Revue Bibliographique Universelle*, *Reader's Guide to Periodical Literature*, and other bibliographic aids well known to librarians and bibliographers.

Part II includes *Bibliographies of Special Subjects* issued separately or in connection with monographic studies. These are grouped under a single alphabet including regional, stratigraphic, and faunal rubrics. Only one master entry with cross references has been made and its choice has been determined by the major interest underlying the compilation of the bibliography. Thus, a "Bibliography of the Miocene

Mollusca of Maryland" might have been gathered to include only those works referring to Maryland or to include references to those dealing with other mollusca or Miocene deposits found useful in preparing the accompanying monograph. In such editorial selection there is necessarily a greater likelihood of error and almost certain differences of opinion. The motive has been to place the major entry where it would most probably be sought and the cross references where they might be serviceable. When the same bibliographies have been issued several times only the latest edition has been cited.

Part III includes *Personal Bibliographies and Necrologies* with attached bibliographies found in geological literature and bibliographies of geologists, mineralogists, and paleontologists issued elsewhere.

The errors of omission, transcription, and classification have been eliminated as far as possible, yet no one can realize more fully than does the compiler the fact that this collection is far from the ideal in completeness and accuracy. The extensive resources of the U. S. Geological Survey, the Congressional Library, and the Geological Department of the Johns Hopkins University probably include practically everything dealing with American geological literature, but there must be many omissions of bibliographies of foreign origin. Such, however, are chiefly those appearing in publications rarely available to American geologists. In spite of these and other less manifest imperfections, it is hoped that the compilation will prove of service to geologists generally and save them time for the conduct of their manifold and important investigations.

If the compiler had been allowed his way he would have added as joint-author the name of Miss Grace E. Reed, whose efficient and careful assistance has added greatly to whatever of value there may be in this compilation.

JOHNS HOPKINS UNIVERSITY,
March, 1923.

LIST OF ABBREVIATIONS

- Aarg. naturf. Gesell., Mitth. Mittheilungen der aargauischen naturforschenden Gesellschaft.
- Acad. Caes. Leop.-Car., Nova Acta. Nova Acta Academiae Caesareae Leopoldino-Carolinae Germanicae Naturae Curiosorum. *See also* Leop.-Car. deutsch. Akad. Naturf., Abh.
- Acad. cienc. Madrid, Rev. Revista de la real Academia de ciencias exactas, físicas y naturales, Madrid.
- Acad. sci. St. Petersburg., Bull. Bulletin de l'Académie impériale des sciences, St. Petersburg.
- Acad. sci. St. Petersburg., Mém. Mémoires de l'Académie impériale des sciences, St. Petersburg.
- Acad. nac. Córdoba, Bol. Boletín de la Academia nacional de ciencias-en Córdoba.
- Acad. nac. Córdoba, Misc. Academia nacional de ciencias, Miscelanea.
- Acad. Nat. Sci. Phila., Journ. Journal of the Academy of Natural Sciences, Philadelphia.
- Acad. Nat. Sci., Phila., Proc. Proceedings of the Academy of Natural Sciences, Philadelphia.
- Acad. Roumaine Sect. sci., Bull. Bulletin de la Section scientifique de l'académie Roumaine.
- Acad. roy. Belg., Mém. Mémoires de l'Académie royale de belgique. Classe des sciences.
- Acad. roy. sci. Danemark, Bull. Bulletin de l'Académie royale des sciences et des lettres de Danemark.
- Acad. roy. sci. Danemark, Mém. Mémoires de l'Académie royale des sciences et des lettres de Danemark.
- Acad. sci. Cracovie, Bull. Bulletin international de l'Académie des sciences de Cracovie.
- Acad. sci. Toulouse, Mém. Mémoires de l'Académie des sciences de Toulouse.
- Accad. d. Lincei, Atti. Atti della reale Accademia dei Lincei.
- Accad. d. Lincei, Mem. Memorie della reale Accademia dei Lincei. Classe de scienze fisiche, matematiche e naturali.
- Accad. d. Lincei, Rendic. Rendiconti della reale Accademia dei Lincei. Classe de scienze fisiche, matematiche e naturali.
- Accad. sci. Napoli, Rendic. Rendiconti della reale Accademia delle scienze fisiche e matematiche, Naples.
- Accad. sci. nat. Catania, Atti. Atti dell' Accademia Gioenia si scienze naturali, Catania.
- Accad. sci. Torino, Atti. Atti della reale Accademia delle scienze di Torino.
- Accad. sci. Torino, Mem. Memorie della reale Accademia delle scienze di Torino.
- Akad. Wetenschap. Amsterdam, Proc. sect. sci. K. Akademie van Wetenschappen te Amsterdam. Proceedings of the section of sciences.
- Akad. Wetenschap. Amsterdam, Verh. K. Akademie van Wetenschappen te Amsterdam, Verhandelingen.
- Akad. Wetenschap. Amsterdam, Versl. Verslagen der Vergaderingen van de wis-en natuurkundige Afdeling der koninklijke Akademie van Wetenschappen, Amsterdam.
- Akad. Wissensch. Berlin, Abh. Abhandlungen der königlich preussischen Akademie der Wissenschaften. Physikalisch-mathematische Klasse.
- Akad. Wissensch. Berlin, Sitz. Sitzungsberichte der Königlischen preussischen Akademie der Wissenschaften.
- Akad. Wissensch. München, Abh. Abhandlungen der mathematisch-physikalischen Klasse der K. B. Akademie der Wissenschaften zu München.
- Akad. Wissensch. München, Sitz. Sitzungsberichte der mathematisch-physikalischen Klasse der K. B. Akademie der Wissenschaften zu München.
- Akad. Wissensch. Wien, Denk. Denkschriften der kaiserlichen Akademie der Wissenschaften: Mathematisch-naturwissenschaftliche classe.
- Akad. Wissensch. Wien, Sitz. Sitzungsberichte der kaiserlichen Akademie der Wissenschaften, Wien.
- Ala. Geol. Surv., Bull. Bulletin of Alabama Geological Survey.
- Algeria. Serv. carte géol., Bull. Bulletin des Service de la carte géologique de l'Algérie.
- Alsace-Lorraine. Geol. Landesanst., Abh. Abhandlungen zur geologischen Specialkarte von Elsass-Lothringen.
- Alsace-Lorraine. Geol. Landesanst., Mitth. Mittheilungen der geologischen Landesanstalt von Elsass-Lothringen.
- Alsace-Lorraine. Serv. carte géol., Bull. Bulletin des Services de la carte géologique.
- Am. Acad. Arts & Sci., Mem. Memoirs of the American Academy of Arts and Sciences.
- Am. Acad. Arts. & Sci., Proc. Proceedings of the American Academy of Arts and Sciences.
- Am. Assoc. Adv. Sci. American Association for the Advancement of Science.
- Am. Cer. Soc., Trans. Transactions of the American Ceramic Society.
- Am. Geog. Soc., Bull. Bulletin of the American Geographical Society.
- Am. Geol. American Geologist.

- Am. Inst. M. E., Trans. Transactions of the American Institute of Mining Engineers.
 Am. Journ. Sci. American Journal of Science.
 Am. Min. American Mineralogist.
 Am. Min. Cong. American Mining Congress.
 Am. Mus. Nat. Hist., Bull. Bulletin of the American Museum of Natural History.
 Am. Mus. Nat. Hist., Mem. Memoirs of the American Museum of Natural History.
 Am. Nat. American Naturalist.
 Am. Phil. Soc., Proc. Proceedings of the American Philosophical Society.
 Am. Phil. Soc., Trans. Transactions of the American Philosophical Society.
 Ann. mines. Annales des mines.
 Ann. geol. balk. Annales géologiques de la péninsule balkanique.
 Ann. géol. et min. Russ. Annuaire géologique et minéralogique de la Russie.
 Ann. sci. nat., A. Annales des sciences naturelles; Zoologie et Paléontologie.
 Arch. Lagerstättenf. Archiv für Lagerstättenforschung.
 Arch. sci. phys. nat. Archives des sciences physiques et naturelles.
 Argentine Rep. Min. agri., An. Anales del Ministerio de Agricultura. Sección geología, mineralogía y minería.
 Argentine Rep. Dir. gen. min., Bol. Argentine Republic. Dirección general del minas, geología e hidrología. Boletín.
 Ariz. Univ., Bull. Min. tech. ser. University of Arizona Bulletin. Mineral technology series.
 Ark. Agri. Exp. Sta., Bull. Bulletin of the Arkansas Agricultural Experiment Station.
 Assoc. franç. av. sci., C. R. Comptes-rendus de l'Association française pour l'avancement des sciences.
 Augustana Lib. Publ. Augustana Library Publications.
 Austral. Assoc. Adv. Sci. Australasian Association for the Advancement of Science.
 Austral. Inst. Min. Eng., Proc. Proceedings of the Australasian Institute of Mining Engineers.
 Austral. Inst. Min. Eng., Trans. Transactions of the Australasian Institute of Mining Engineers.
 Austral. Mus., Rec. Records of the Australian Museum.
 Austria. Geol. Reichsanst., Abh. Abhandlungen der kaiserlich-königlichen geologischen Reichsanstalt.
 Austria. Geol. Reichsanst., Jahrb. Jahrbuch der kaiserlich-königlichen geologischen Reichsanstalt.
 Austria. Geol. Reichsanst., Verh. Verhandlungen der kaiserlich-königlichen geologischen Reichsanstalt.
 Baden. Geol. Landesanst., Mitth. Mittheilungen der grossherzoglich badischen geologischen Landesanstalt.
 Beitr. geol. Erfors. Deutsch. Schutz. Beiträge zur geologischen Erforschung der deutschen Schutzgebiete.
 Beitr. geol. Karte Schweiz. Beiträge zur geologischen Karte der Schweiz.
 Beitr. geol. Karte Schweiz, Geotech. ser. Beiträge zur geologischen Karte der Schweiz. Geotechnische Serie.
 Beitr. Paläont. Oesterr.-Ung. Beiträge zur Paläontologie und Geologie Österreich-Ungarns und des orient.
 Beitr. z. Geophys. Beiträge zur Geophysik.
 Berg-hütt. Jahrb. Berg- und hüttenmännisches Jahrbuch der k. k. montanistische Hochschulen zu Leoben und Příbram.
 Bergens Mus. Aarb. Bergens Museums Aarbok (or Aarberetning).
 Bergw. Mitt. Bergwirtschaftliche Mitteilungen.
 Böhm. Gesell. Wissen., Sitz. Sitzungsberichte der königl.-böhmischen Gesellschaft der wissenschaften. Mathematisch-naturwissenschaftliche Klasse.
 Bol. nat. Siena. Bollettino del naturalista, Siena.
 Boston Soc. Nat. Hist., Mem. Memoirs of the Boston Society of Natural History.
 Boston Soc. Nat. Hist., Proc. Proceedings of the Boston Society of Natural History.
 Brazil. Comm. est. min., Final Rept. Brazil, Commissao de estudos das minas de carvão de pedra do Brazil. Final Report.
 Brazil. Serv. geol. Brazil, Serviço geológico e mineralógico.
 Brit. Assoc. Adv. Sci., Rept. Report of British Association for the Advancement of Science.
 Brit. Columbia Dept. Mines, Bull. Bulletin of Department of Mines, British Columbia.
 Buffalo Soc. Nat. Sci., Bull. Bulletin of the Buffalo Society of Natural Sciences.
 Bull. Am. Paleont. Bulletins of American Paleontology.
 Cal. Acad. Sci., Mem. Memoirs of the California Academy of Sciences.
 Cal. Acad. Sci., Proc. Proceedings of the California Academy of Sciences.

- Cal. State Min. Bur. Bull. Bulletin of the California State Mining Bureau.
 Cal. Univ., Mem. Memoirs of the University of California.
 Cal. Univ., Pub. in Geol. University of California Publications in Geology.
 Cal. Univ. Dept. Geol., Bull. University of California Publications. Bulletin of the Department of Geology.
 Cambridge Phil. Soc., Proc. Proceedings of the Cambridge Philosophical Society.
 Canad. Inst., Trans. Transactions of the Canadian Institute.
 Canad. Min. Inst., Bull. Monthly Bulletin of the Canadian Mining Institute.
 Canad. Min. Inst., Journ. Journal of the Canadian Mining Institute.
 Canad. Min. Inst., Trans. Transactions of the Canadian Mining Institute.
 Canad. Min. Journ. Canadian Mining Journal.
 Canad. Rec. Sci. Canadian Record of Science.
 Canada Comm. Con. Commission of Conservation, Canada.
 Canada Dept. Int., Mines Br. Canada Department of the Interior. Mines Branch.
 Canada Dept. Mines, Mines Br., Bull. Bulletin of Canada Department of Mines, Mines Branch.
 Canada Geol. Surv., Ann. Rept. Annual Report of the Geological Survey of Canada.
 Canada Geol. Surv., Mem. Memoirs of the Geological Survey of Canada.
 Canada Geol. Surv. Cont. Can. Paleont. Contribution to Canadian paleontology.
 Canada Geol. Surv., Vict. Mem. Mus., Bull. Canada Geological Survey, Victoria Memorial Museum, Bulletin.
 Carnegie Inst. Wash., Publ. Publications of the Carnegie Institution, Washington.
 Carnegie Mus., Pittsburgh, Ann. Annals of the Carnegie Museum, Pittsburgh.
 Carnegie Mus. Pittsburgh, Mem. Memoirs of the Carnegie Museum, Pittsburgh
 Centralb. f. Min. Centralblatt für Mineralogie, Geologie und Palaeontologie.
 Chicago Acad. Sci., Bull. Bulletin of the Chicago Academy of Sciences.
 Chicago Acad. Sci., Sp. Publ. Special Publications of the Chicago Academy of Sciences.
 China. Geol. Surv., Bull. Bulletin of the Geological Survey of China.
 Christiania Vidensk.-Forhandl. Christiania Videnskabs-selskabs Forhandlingar.
 Cinn. Soc. Nat. Hist., Journ. Journal of the Cincinnati Society of Natural History.
 Colo. Geol. Surv., Bulletin. Bulletin of the Colorado Geological Survey.
 Colo. Geol. Surv., Rept. Report of the Colorado Geological Survey.
 Colo. Sci. Soc., Proc. Proceedings of the Colorado Scientific Society.
 Colo. Univ. Studies. University of Colorado Studies.
 Columbia Univ. Dept. Geol., Contr. Contributions from the Geological Department of Columbia University.
 Com. invest. paleont. Comisión de investigaciones paleontológicas y prehistoricas. Memoria.
 Comm. State Reserv. Niagara, Ann. Rept. Annual Report of the Commissioners of the State Reservation at Niagara.
 Congrès géologique international. See Int. Geol. Cong.
 Connect. Acad. Sci., Trans. Transactions of the Connecticut Academy of Arts and Sciences.
 Connect. Geol. Surv., Bull. Connecticut State Geological and Natural History Survey. Bulletin.
 Cuba. Sec. agri., Bol. esp. Cuba, Secretaria de Agricultura, comercio y trabajo. Boletín especial.
 Cuba. Sec. agri., Bol. de minas. Cuba Secretaria de Agricultura, comercio y trabajo. Dirección de montes y minas. Boletín de minas.
 Dansk geol. foren., Meddel. Meddelelser fra Dansk geologisk forening.
 Danske videns. selsk., Skrifter. K. Danske Videnskabernes Selskab, Copenhagen. Naturvidenskabelig og matematisk afdeling. Skrifter.
 Denison Univ., Sci. Lab., Bull. Bulletin of the Scientific Laboratories of Denison University.
 Denmark. Geol. undersøg. Danmarks Geologiske undersøgelse.
 Deutsch. geol. Gesell., Zeit. Zeitschrift der deutschen geologischen Gesellschaft.
 Deutsch. u. oesterr. Alpenver., Zeit. Zeitschrift des deutschen und österreichischen Alpenvereins.
 Eclogae Geol. Helv. Eclogae geologicae Helvetiae.
 Econ. Geol. Economic Geology.
 Edinb. Geol. Soc., Trans. Transactions of the Edinburgh Geological Society.
 Egypt Geol. Surv., Rept. Egypt Geological Survey. Report.
 Elisha Mitchell Sci. Soc., Journ. Journal of the Elisha Mitchell Scientific Society.
 Eng. & Min. Journ. Engineering and Mining Journal.

- Erdbeben-Komm. Akad. Wissensch., Wien. Mitth. Mittheilungen der Erdbeben-Kommission der k. Akademie der Wissenschaften in Wien.
- Fennia. Fennia: Bulletin de la Société de géographie de Finlande.
- Field Columbian Mus. Field Columbian Museum. Geological Series.
- Finland. Comm. géol., Bull. Bulletin de la Commission géologique de Finlande.
- Florida Geol. Surv., Ann. Rept. Annual Report of the Florida State Geological Survey.
- Földt. Közl. Földtani Közlosny, Budapest.
- Fortschr. Min. Krist. Petrogr. Fortschritte der Mineralogie, Kristallographie und Petrographie.
- France. Serv. carte géol., Bull. Bulletin des Services de la carte géologique de la France.
- France. Serv. carte géol., Mém. Mémoires pour servir à l'explication de la carte géologique détaillée de la France.
- France. Serv. top. souterr., Études gîtes min. Col. franç. Études des gîtes minéraux de la France. Colonies françaises.
- Frank. Inst., Journ. Journal of the Franklin Institute.
- Franz Josefs-Akad., Abh. Abhandlungen der tschechischen Kaiser Franz Josefs-Akademie für Wissenschaft, Literatur und Kunst.
- Fysiogr. Sällsk. Lund Handl. Kongliga fysiografiska Sällskapet i Lund Handlingar.
- Geogr. Abh. Geographisches Abhandlungen.
- Geogr. Ann. Geografiska annaler, Stockholm.
- Geogr. Jahresb. Geographischer Jahresbericht aus Österreich.
- Geogr. Journ. Geographical Journal, London.
- Geogr. Rev. Geographical Review.
- Geogr. Gesell. Wien, Mitth. Mittheilungen der geographischen Gesellschaft in Wien.
- Geogn. Jahresh. Geognostische Jahreshefte.
- Geol. Assoc., Proc. Proceeding of the Geologists' Association.
- Geol. Fören. Stockh. Förh. Geologiska föreningens i Stockholm förhandlingar.
- Geol. Hung. Geologica Hungarica.
- Geol. Karte Schweiz., Erläut. Geologische Karte der Schweiz, Erläuterungen.
- Geol. Mag. Geological Magazine.
- Geol.-mijn. Genoots. v. Neder. en Kol. Verhandeligen van het geologisch-mijn-bouwhundig Genootschap voor Nederland en Kolonien.
- Geol. Rundsch. Geologische Rundschau.
- Geol. Soc. Am., Bull. Bulletin of the Geological Society of America.
- Geol. Soc. Glasgow, Trans. Transactions of the Geological Society of Glasgow.
- Geol. Soc. Hull, Trans. Transactions of the Geological Society of Hull.
- Geol. Soc. London, Q. J. Quarterly Journal of the Geological Society of London.
- Geol. Soc. S. Afr., Trans. Transactions of the Geological Society of South Africa.
- Geol. Soc. Tokyo, Journ. Journal of the Geological Society of Tokyo.
- Geol. u. paläont. Abh. Geologische und palaeontologische Abhandlungen.
- Geol. Zentralbl. Geologische Zentralblatt.
- Georgia Geol. Surv., Bull. Bulletin of the Georgia Geological Survey.
- Gesell. Erd. Berlin, Zeit. Zeitschrift der Gesellschaft für Erdkunde zu Berlin.
- Gesell. von Freund. Gera, Jahresh. Jahresbericht der Gesellschaft von Freunden der Naturwissenschaft in Gera.
- Gesell. Wissen. Göttingen, Abh. Abhandlungen der königlichen Gesellschaft der Wissenschaften zu Göttingen. Mathematisch-physikalische Klasse.
- Gesell. Wissen. Göttingen, Nachr. Nachrichten von der königlichen Gesellschaft der Wissenschaften zu Göttingen. Mathematisch-physikalische Klasse.
- Giorn. geol. prat. Giornale di geologia pratica.
- Glasgow Univ. Geol. Dept., Papers. Papers from the Geological Department Glasgow University.
- Gt. Brit. Geol. Surv., Mem. Memoirs of Geological Survey of Great Britain.
- Gt. Brit. Geol. Surv., Spec. Repts. Min. Res. Memoirs of the Geological Survey. Special Reports on the Mineral Resources of Great Britain.
- Grenoble, Univ., Ann. Annales de l'université de Grenoble.
- Grenoble, Univ. Lab. géol., Trav. Travaux du laboratoire de géologie de l'université Grenoble.
- Groningen, Min.-geol. Inst., Mitth. Mittheilungen aus dem mineralogisch-geologischen Institut der Reichs-Universität zu Groningen.
- Handb. reg. Geol. Handbuch der regionalen Geologie.
- Harvard Univ. Mus. Comp. Zool., Bull. Bulletin of the Museum of Comparative Zoology at Harvard College. Geological series.

- Hesse. Geol. Landesanst., Abh. Abhandlungen der grossherzoglich hessischen geologischen Landesanstalt zu Darmstadt.
- Hist. Monatsbl. Posen. Historische Monatsblätter für die Provinz Posen.
- Hungary. Geol. Anst., Jahrb. Jahrbuch der königlich ungarischen geologischen Anstalt.
- Hungary. Geol. Anst., Mitth. Mittheilungen aus dem Jahrbuche der königlich ungarischen geologischen Anstalt.
- Illinois Geol. Surv., Bull. Illinois State Geological Survey. Bulletin.
- Imp. Inst. Mon. Imperial Institute Monographs on Mineral Resources with special reference to the British Empire.
- India Geol. Surv., Mem. Memoirs of the Geological Survey of India.
- India Geol. Surv., Pal. Ind. Geological Survey of India. Palaeontologia indica.
- India Geol. Surv., Rec. Records of the Geological Survey of India.
- Indiana Dept. Conserv. Indiana Department of Conservation. Division of Geology. Publication.
- Indiana Dept. geol., Ann. Rept. Indiana Department of Geology and Natural Resources. Annual Report.
- Indo-China. Serv. géol., Bull. Bulletin du Service géologique de l'Indochine.
- Indo-China. Serv. géol., Mém. Mémoires du Service géologique de l'Indochine.
- Inst. Cat. Hist. Nat., Treb. Treballs de la institucio Catalana d'història natvral. Barcelona.
- Inst. M. E., Trans. Transactions of the Institution of Mining Engineers.
- Inst. Petrol. Tech., Journ. Journal of the Institution of Petroleum Technologists.
- Int. Geog. Cong., Rept. Report of the International Geographical Congress.
- Int. Geol. Cong. International Geological Congress.
- Iowa Acad. Sci., Proc. Proceedings of the Iowa Academy of Science.
- Iowa Geol. Surv. Iowa Geological Survey.
- Iowa Univ. Lab. Nat. Hist., Bull. Bulletin of the Laboratory of Natural History of University of Iowa.
- Ireland Geol. Surv., Mem. Memoirs of the Geological Survey of Ireland.
- Irish Nat. Irish Naturalist.
- Italy. Com. geol., Boll. Bollettino del R. Comitato geologico d'Italia.
- Italy. Com. geol., Mem. carta geol. Italy R. Comitato geologico. Memorie descrittive della carta geologica d'Italia.
- J. H. U. Circ. Johns Hopkins University Circulars.
- Jaarb. Mijnw. Ned. O.-Ind. Jaarboek van het Mijnwesen in Nederlandsch Oost-Indië.
- Jahrb. f. Berg- u. Hüttenw. Sachsen. Jahrbuch für das Berg- und Hüttenwesen in Königreiche Sachsen.
- Journ. Geol. Journal of Geology.
- Kansas Acad. Sci., Trans. Transactions of the Kansas Academy of Science.
- Kansas Geol. Surv. The University Geological Survey of Kansas.
- Kansas Univ., Sci. Bull. Science Bulletin of the University of Kansas.
- Ky. Dept. Geol. & Forest., Bull. Bulletin of the Department of Geology and Forestry of Kentucky.
- Ky. Geol. Surv. Kentucky Geological Survey.
- La Plata Mus., An. Sec. geol. y min. Anales del Museo de la Plata. Sección geológica y mineralógica.
- La Plata Mus., Rev. Revista del Museo de la Plata.
- Lausanne, Univ. Lab. géol., Bull. Bulletin des laboratoires de géologie, géographie physique, minéralogie et paléontologie de l'Université de Lausanne.
- Leiden. Geol. R. Mus., Samml. Sammlungen des geologischen Reichs-Museums in Leiden.
- Leop.-Car. deutsch. Akad., Abh. Abhandlungen der kaiserlichen Leopoldinisch-Carolinischen deutschen Akademie der Naturforscher. *See also* Acad. Caes. Leop.-Car., Nova Acta.
- Linnean Soc. London, Trans. Transactions of the Linnean Society, London.
- Linnean Soc. N. S. W., Proc. Proceedings of the Linnean Society of New South Wales.
- Liverpool Geol. Soc., Proc. Proceedings of the Liverpool Geological Society.
- Lotos, Prag. Lotos, Prag.
- Louvain, Univ. Inst. geol., Mém. Mémoires de l'institut géologique de l'université de Louvain.
- Lunds geol. fältk., Meddel. Meddelande fran Lunds geologiska fältklubb.
- Lunds Univ. årssk. Lunds Universitets årsskrift.
- Lyon, Univ., Ann. Annales de l'université de Lyon. I. Sciences, Médecine.

- McGill Univ., Papers Dept. Geol. Papers from the Department of Geology McGill University.
- Mähr. Landesmus. Brünn, Zeit. Zeitschrift des Mährischen Landesmuseums Brünn.
- Manchester Phil. Soc., Mem. & Proc. Memoirs and Proceedings of the Manchester Literary and Philosophical Society.
- Marseille, Fac. sci., Ann. Annales de la Faculté des sciences de Marseille.
- Marseille, Mus. hist. nat., Ann. Annales del Musée d'histoire naturelle de Marseille.
- Matér. carte géol. Suisse. Matériaux pour la Carte géologique de la Suisse.
- Matér. géol. Caucase. Matériaux pour la géologie du Caucase, Tiflis.
- Mater. Geol. Russ. Materialien zur Geologie Russlands.
- Med. Grønland. Meddelelser om Grønland.
- Med. indust. Finland. Meddelanden fran industristyrelsen i Finland.
- Med.-naturw. Gesell. Jena, Denks. Denkschriften der medicinisch-naturwissenschaftlichen Gesellschaft zu Jena.
- Mededeel. Rijksop. Delfstof. Mededeelingen van de Rijksopsporing van Delfstoffen.
- Melbourne, Nat. Mus., Mem. Memoirs of the National Museum, Melbourne.
- Md. Geol. Surv. Maryland Geological Survey.
- Mexico. Dept. minas, bol. min. Boletín minero, organo del Departamento de minas, Mexico.
- Mexico Inst. geol., An. Anales del Instituto geológico de Mexico.
- Mexico Inst. geol., Bol. Boletín del Instituto geológico de Mexico.
- Mich. Acad. Sci., Ann. Rept. Annual Report of the Michigan Academy of Science.
- Mich. Acad. Sci., Bull. Bulletin of the Michigan Academy of Science.
- Mich. Geol. Surv. Geological Survey of Michigan.
- Min. & Eng. World. Mining and Engineering World.
- Min. & Sci. Press. Mining and Scientific Press.
- Min. Ind. Mineral Industry.
- Min. Mag. Mineralogical Magazine.
- Min. Sci. Mining Science.
- Minn. Geol. Surv., Bull. Bulletin of the Minnesota Geological Survey.
- Minn. Sch. Mines Exp. Sta., Bull. Bulletin of the University of Minnesota, Minnesota School of Mines Experiment Station.
- Miss. Geol. Surv., Bull. Bulletin of the Mississippi State Geological Survey.
- Mitth. Osterlande. Mittheilungen aus dem Osterlande, herausg. von der Naturforschenden Gesellschaft des Osterlandes.
- Mitth. Pollichia. Mittheilungen der Pollichia, Dürkheim.
- Mitth. staat. Bohr. Niederl. Mittheilungen der staatlichen Bohrverwaltung in den Niederlanden.
- Mo. Bur. Geol. Missouri Bureau of Geology & Mines.
- Mo. Geol. Surv. Missouri Geological Survey.
- Mo. Hist. Rev. Missouri Historical Review.
- Mo. Univ. Studies. University of Missouri Studies.
- Montana Univ., Bull. University of Montana Bulletin.
- Mus. cienc. nat. Madrid, Trab. Trabajos del Museo nacional de ciencias naturales Madrid, [Serie geológica].
- Mus. géol. Pierre le Grand, Trav. Travaux du Musée géologique Pierre le Grand.
- Mus. hist. nat. Belg., Mém. Mémoires du Musée royal d'histoire naturelle de Belgique.
- Mus. hist. nat. Paris, Nouv. arch. nouvelles Archives du Museum d'histoire naturelle, Paris.
- Mus. min. univ. Copenhagen, Com. geol. Museum de minéralogie et de géologie de l'université de Copenhagen. Communications géologiques.
- Mus. nac. Buenos Aires, An. Anales del Museo nacional de Buenos Aires.
- Mus. Paul., Rev. Revista do Museu Paulista.
- N. C. Geol. Surv., Bull. Bulletin of the North Carolina Geological and Economic Survey.
- N. J. f. Min. Neues Jahrbuch für Mineralogie, Geologie und Paläontologie.
- N. J. f. Min., B. B. Neues Jahrbuch für Mineralogie, Geologie und Paläontologie, Beilage-Band.
- N. J. Geol. Surv., Bull. Bulletin of the Geological Survey of New Jersey.
- N. J. Geol. Surv., Final Rept. Final Report of the State Geologist of New Jersey.
- N. S. Wales Geol. Surv., Mem. Pal. Memoirs of the Geological Survey of New South Wales, Paleontology.
- N. S. Wales Geol. Surv., Min. Res. Mineral Resources of the Geological Survey of New South Wales.
- N. S. Wales Geol. Surv., Rec. Records of the Geological Survey of New South Wales.

- N. Y. Acad. Sci., Ann. Annals of the New York Academy of Sciences.
 N. Y. Acad. Sci., Mem. Memoirs of the New York Academy of Sciences.
 N. Y. Acad. Sci., Sci. Surv. P. R. New York Academy of Sciences, Scientific Survey of Porto Rico and the Virgin Islands.
 N. Y. State Mus., Bull. Bulletin of the New York State Museum.
 N. Y. State Mus., Mem. Memoirs of the New York State Museum.
 N. Y. State Mus., Rept. State Geol. Report of the State Geologist.
 N. Z. Geol. Surv., Ann. Rept. Annual Report of the Geological Survey of New Zealand.
 N. Z. Geol. Surv., Bull. Bulletin of the Geological Survey of New Zealand.
 N. Z. Geol. Surv., Pal. Bull. Palaeontological Bulletin of the Geological Survey of New Zealand.
 N. Z. Inst., Trans. & Proc. Transactions and Proceedings of the New Zealand Institute.
 N. Z. Journ. Sci. New Zealand Journal of Science and Technology.
 Nat. Acad. Sci., Mem. Memoirs (or Biographical Memoirs) of the National Academy of Sciences, Washington.
 Nat. Acad. Sci., Proc. Proceedings of the National Academy of Sciences, Washington.
 Nat. Hist. Soc. Hertford. Transactions of the Natural History Society of Hertford.
 Nat. Hist. Soc. New Brunswick, Bull. Bulletin of the Natural History Society of New Brunswick.
 Natal & Zululand Geol. Surv., Rept. Reports of the Geological Survey of Natal and Zululand.
 Naturalist. Naturalist, London.
 Naturf. Gesell. Basel, Verh. Verhandlungen der naturforschenden Gesellschaft, Basel.
 Naturf. Gesell. Freiburg i. B., Ber. Berichte der naturforschenden Gesellschaft, Freiburg (Baden).
 Naturf. Gesell. Graubündens, Jahresb. Jahresbericht der naturforschenden Gesellschaft Graubündens.
 Naturf. Gesell. Zurich, Vier. Vierteljahrsschrift der naturforschenden Gesellschaft in Zurich.
 Naturh. Gesell. Colmar, Mitth. Mittheilungen der naturhistorischen Gesellschaft in Colmar.
 Naturh. Gesell. Nürnberg, Abh. Abhandlungen der naturhistorischen Gesellschaft zu Nürnberg.
 Naturh. Hofmus. Wien, Ann. Annalen des k. k. naturhistorischen Hofmuseums, Wien.
 Naturh. Ver. preuss. Rheinl., Sitz. Sitzungsberichte herausgegeben von naturhistorischen Verein der preussischen Rheinlande und Westfalens.
 Naturh. Ver. preuss. Rheinl., Verh. Verhandlungen des naturhistorischen Vereins der preussischen Rheinlande, Westfalens und des Regierungs-Bezirks Osnabrück.
 Naturw. Ver. Magdeburg, Jahresb. u. Abh. Jahresberichte und Abhandlungen des naturwissenschaftlichen Vereins in Magdeburg.
 Naturw. Ver. Schles.-Holstein, Schr. Schriften des naturwissenschaftlichen Vereins für Schleswig-Holstein.
 Naturw. Ver. Steiermark, Mitth. Mittheilungen des naturwissenschaftlichen Vereins für Steiermark.
 Nautilus. Nautilus.
 Nebraska Bd. Agri., Ann. Rept. Annual Report of Nebraska State Board of Agriculture.
 Nebraska Geol. Surv. Nebraska Geological Survey.
 Niedersäch. geol. Ver., Jahresb. Jahresbericht des niedersächsischen geologischen Vereins.
 Norges geol. Undersøk. Norges geologiska Undersøkelse.
 Norsk. geol. Tidsskr. Norsk geologisk Tidsskrift.
 North Stafford. Field Club, Trans. Transactions of the North Staffordshire Field Club.
 Oberrhein. geol. Ver., Ber. u. Versamml. Bericht über die Versammlungen des oberrheinischen Vereins.
 Ohio Acad. Sci., Proc. Proceedings of the Ohio State Academy of Science.
 Ohio Geol. Surv., Bull. Bulletin of the Geological Survey of Ohio.
 Ohio Nat. Ohio Naturalist.
 Okla. Geol. Surv., Bull. Bulletin of the Oklahoma Geological Survey.
 Ontario Bur. Mines, Rept. Report of the Bureau of Mines, Ontario.
 Oregon Univ., Bull. Bulletin of the University of Oregon.
 Ottawa Nat. Ottawa Naturalist.
 Padua, Univ., Mem. inst. geol. Memorie dell'istituto geologico della R. universita di Padova.
 Palæont. Abh. Palaeontologische Abhandlungen.
 Palæont. ital. Palaeontographia italica.

- Palaeont. Soc. Publ. Palaeontographical Society Publications.
 Paläont. Zeit. Palaeontologische Zeitschrift.
 Palaeontographica. Palaeontographica.
 Pam. fizyog. Pamietnik fizyograficzny Warszawa.
 Pan.-Am. Sci. Cong. Wash. D. C., Proc. Proceedings of Pan-American Scientific Congress, Washington, D. C.
 Penna. Geol. Surv., Rept. Report of the Topographic and Geologic Survey of Pennsylvania.
 Peru. Ing. minas, Bol. Boletín del cuerpo de ingenieros de minas del Perú.
 Phys.-med. Soc. Erlangen, Sitz. Sitzungsberichte der physikalisch-medicinischen Societät zu Erlangen.
 Phys.-ökon. Gesell. Königsberg, Schr. Schriften der physikalisch-ökonomischen Gesellschaft, Königsberg in Pr.
 Pont. Accad. rom. Lincei, Atti. Atti della Pontificia accademia romana dei nuovi Lincei.
 Portugal. Serv. geol., Comm. Communicações do Commissão do serviço geológico de Portugal.
 Princeton Univ. Cont. Geol. Newfoundland. Princeton University Contributions to the Geology of Newfoundland.
 Princeton Univ. Exp. Patagonia, Repts. Reports of the Princeton University Expeditions to Patagonia, 1896-1899.
 Prussia. Geol. Landesanst., Abh. Abhandlungen der königlich preussischen geologischen Landesanstalt.
 Prussia. Geol. Landesanst., Jahrb. Jahrbuch der königlich preussischen geologischen Landesanstalt.
 Publ. cienc. nat. Barcelona. Publicacions de la junta de ciències naturals de Barcelona.
 Quebec Dept. Coloniz. Mines Br. Province of Quebec, Canada, Department of Colonization, Mines and Fisheries, Mines Branch.
 Queensland Geol. Surv., Publ. Queensland Geological Survey. Publications.
 Res. Tenn. The Resources of Tennessee.
 Res. wissen. Erf. Balatonsees. Resultate der wissenschaftlichen Erforschung des Balatonsees.
 Rev. gén. bot. Revue général de botanique.
 Riv. geog. ital. Rivista geografica italiana, Firenze.
 Riv. ital. paleont. Rivista italiana paleontologia.
 Riv. min. e crist. Rivista di mineralogia e cristallografia italiana.
 Rochester Acad. Sci., Proc. Proceedings of the Rochester Academy of Science.
 Roy. Dub. Soc., Econ. proc. Economic Proceedings of the Royal Dublin Society.
 Roy. Dub. Soc., Sci. proc. Scientific Proceedings of the Royal Dublin Society.
 Roy. Soc. Canada, Proc. & Trans. Proceedings and Transactions of the Royal Society of Canada.
 Roy. Soc. Edinb., Proc. Proceedings of the Royal Society of Edinburgh.
 Roy. Soc. Edinb., Trans. Transactions of the Royal Society of Edinburgh.
 Roy. Soc. Lond., Phil. Trans. Philosophical Transactions of the Royal Society of London.
 Roy. Soc. N. S. Wales, Journ. & Proc. Journal and Proceedings of the Royal Society of New South Wales.
 Roy. Soc. S. Aust., Trans. & Proc. Transactions and Proceedings of the Royal Society of South Australia.
 Roy. Soc. Vict., Proc. Proceedings of the Royal Society of Victoria.
 Rumania. Inst. geol., An. Anuarul institutului geologic al Romaniei.
 Russ. Cab. S. M., Sec. géol. Trav. Travaux de la section géologique du cabinet de sa majesté.
 Russ. min. Gesell., Verh. Verhandlungen der russisch-kaiserlichen mineralogischen Gesellschaft zu St. Petersburg.
 Russia. Com. géol., Bull. Bulletins du Comité géologique, Russie.
 Russia. Com. géol., Mém. Mémoires du Comité géologique, Russie.
 S. Afr. Mus., Ann. Annals of the South African Museum.
 S. Afr. Phil. Soc., Trans. Transactions of the South African Philosophical Society.
 S. Aust. Geol. Surv., Bull. Bulletin of the Geological Survey of South Australia.
 S. Aust. Gov. Geol., Ann. Rept. Annual Report of South Australia Government Geologist.
 S. Dak. Geol. Surv., Bull. Bulletin of the South Dakota Geological Survey.
 S. Dak. Geol. Surv., Circ. Circular of the South Dakota Geological Survey.
 S. Dak. Sch. Mines, Bull. South Dakota School of Mines, Bulletin, Department of Geology.

- Sachs. Akad. Wissen. Leipzig, Abh. Abhandlungen der sächsischen Akademie der Wissenschaften. Mathematische-physikalische Klasse.
- Sachs. Akad. Wissen. Leipzig, Ber. u. d. Verh. Berichte über die Verhandlungen der sächsischen Akademie der Wissenschaften zu Leipzig. Mathematische-physikalische Klasse.
- St. Louis Acad. Sci., Trans. Transactions of the Academy of Science of St. Louis.
- San Diego Soc. Nat. Hist., Trans. Transactions of the San Diego Society of Natural History.
- Saxony. Geol. Karte, Erläut. Erläuterungen zur geologischen Spezialkarte des Königreichs Sachsen.
- Sch. Min. Quart. School of Mines Quarterly.
- Schw. naturf. Gesell., N. Denk. Neue Denkschriften der allgemeinen schweizerischen Gesellschaft für die gesammte Naturwissenschaften.
- Schw. naturf. Gesell., Verh. Verhandlungen der schweizerischen naturforschenden Gesellschaft.
- Schw. paläont. Gesell., Abh. Abhandlungen der Schweizerischen paläontologischen Gesellschaft. *See also* Soc. paläont. suisse, Mem.
- Schwed. Südpolar Exp. 1901-1903, Wissenschaft. Ergeb. Wissenschaftliche Ergebnisse der Schwedischen Südpolar Expedition, 1901-1903.
- Sci. Science.
- Sci. et nat. Brux. Science et nature, Bruxelles.
- Sci. Prog. Science Progress in the Twentieth Century.
- Scotland Geol. Surv., Mem. Memoirs of the Geological Survey, Scotland.
- Seis. Soc. Am., Bull. Bulletin of the Seismological Society of America.
- Senckenb. naturf. Gesell., Abh. Abhandlungen herausgegeben von der Senckenbergischen naturforschenden Gesellschaft.
- Senckenb. naturf. Gesell., Ber. Bericht der Senckenbergischen naturforschenden Gesellschaft.
- Smith. Misc. Coll. Smithsonian Miscellaneous Collections.
- Smith. Inst., Ann. Rept. Annual Report of the Smithsonian Institution.
- Smith. Inst. Publ. Smithsonian Institution Publications.
- Soc. anthro. Lyon, Bull. Bulletin de la Société d'anthropologie de Lyon.
- Soc. anthro. Paris, Bull. Bulletin et mémoires de la Société d'anthropologie de Paris.
- Soc. belge astron. Société belge d'astronomie de meteorologie et de physique du globe.
- Soc. belge géol., Brux., Bull. Bulletin de la Société belge de géologie, de paléontologie et d'hydrologie. Brussels.
- Soc. belge géol., Brux., Mém. Mémoires de la Société belge de géologie, de paléontologie et d'hydrologie. Brussels.
- Soc. belge géol. Brux., Nouv. mém. Nouveaux mémoires de la Société belge de géologie, de paléontologie et d'hydrologie. Brussels.
- Soc. cient. "Antonio Alzate," Mem. Memorias y revista de la Sociedad científica "Antonio Alzate."
- Soc. franç. min., Bull. Bulletin de la Société française de mineralogie.
- Soc. géol. Belg., Ann. Annales de la Société géologique de Belgique.
- Soc. géol. Belg., Mém. Mémoires de la Société géologique de Belgique.
- Soc. géol. France, Bull. Bulletin de la Société géologique de France.
- Soc. géol. France, Mém. Mémoires de la Société géologique de France.
- Soc. geol. ital., Boll. Bollettino della Società geologica italiana.
- Soc. geol. Mex., Bol. Boletín de la Sociedad geologica Mexicana.
- Soc. géol. Nord, Ann. Annales de la Société géologique du Nord.
- Soc. géol. Normandie, Bull. Bulletin de la Société géologique de Normandie.
- Soc. hist. nat. Chambéry, Bull. Bulletin de la Société d'histoire naturelle Chambéry.
- Soc. ing. ital., Ann. Annali della Società degli ingegneri e architetti italiani, Roma.
- Soc. lig. sci. nat., Genova, Boll. Bollettino della Società ligustica di scienze naturali e geografiche Genova.
- Soc. linn. Lyon, Ann. Annales de la Société linnéenne de Lyon.
- Soc. nac. min. Santiago, Bol. Boletín de la Sociedad nacional de minería Santiago de Chile.
- Soc. nat. Kiev, Mém. Mémoires de la Société des naturalistes de Kiev.
- Soc. nat. mat. Modena, Atti. Atti della Società dei naturalisti e matematici, Modena.
- Soc. nat. Moscou, Bull. Bulletin de la Société impériale des naturalistes de Moscou.
- Soc. nat. Moscou, Nouv. mém. Nouveaux mémoires de la Société impériale des naturalists de Moscou.
- Soc. nat. Podolie, Mém. Mémoires de la Société des naturalistes et des amis de la nature en Podolie.
- Soc. neuch. sci. nat., Bull. Bulletin de la Société neuchateloise des sciences naturelles.

- Soc. paléont. suisse, Mém. Mémoires de la Société paléontologique suisse.
 Soc. phys. Genève, Mém. Mémoires de la Société de physique et d'histoire naturelle de Genève.
 Soc. port. sci. nat., Mém. Mémoires publiés par la Société portugaise des sciences naturelles.
 Soc. sci. nat. Ouest, Bull. Bulletin de la Société des sciences naturelles de l'Ouest.
 Soc. sci. nat. Saône-et-Loire, Bull. Bulletin de la Société des sciences naturelles de Saône-et-Loire.
 Soc. sism. ital., Boll. Bollettino della Società sismologica italiana.
 Soc. statist. Isère, Bull. Bulletin de la Société de statistiques, des sciences naturelles et des arts industriels de l'Isère.
 Soc. vaud. sci. nat., Bull. Bulletin de la Société vaudoise des sciences naturelles.
 Spain. Com. geol., Bol. Boletín de la Comisión del mapa geológico de España.
 Spain. Inst. geol., Bol. Boletín del Instituto geológico de España.
 Spelunca. Spelunca, Bulletin et Mémoires de la Société de spéléologie.
 Sven. Vetenskap. Handl., Arsbok. k. Svenska Vetenskapsakademien handlingar, Årsbok.
 Sweden. Sver. geol. Undersök. Sveriges geologiska undersökning.
- T. M. P. M. Tschermak's mineralogische und petrographische Mittheilungen.
 Tasmania Geol. Surv., Bull. Tasmania Geological Survey Bulletin.
 Tasmania Geol. Surv., Rec. Tasmania Geological Survey Records.
 Tenn. Acad. Sci., Trans. Transactions of the Tennessee Academy of Science.
 Tenn. Geol. Surv., Bull. Bulletin of the Tennessee Geological Survey.
 Texas Acad. Sci., Trans. Transactions of the Texas Academy of Science.
 Texas Univ., Bull. Texas University, Bulletin.
 Tokyo Imp. Univ. Coll. Sci., Journ. Journal of the College of Science, Imperial University of Tokyo, Japan.
 Toronto Univ., Studies. University of Toronto Studies, Geological Series.
- U. S. Bur. Mines, Bull. Bulletin of the United States Bureau of Mines.
 U. S. Bur. Mines, Repts. Invest. Reports of Investigations of United States Bureau of Mines.
 U. S. Bur. Mines, Tech. Papers. Technical Papers of the United States Bureau of Mines.
 U. S. Geol. Surv., Bull. Bulletin of the United States Geological Survey.
 U. S. Geol. Surv., Geol. Atlas. Geologic Atlases of the United States Geological Survey.
 U. S. Geol. Surv., Min. Res. United States Geological Survey. Mineral Resources of the United States.
 U. S. Geol. Surv., Mon. Monographs of the United States Geological Survey.
 U. S. Geol. Surv., Prof. Paper. Professional Papers of the United States Geological Survey.
 U. S. Geol. Surv., Water-Supply Paper. Water-Supply Papers of the United States Geological Survey.
 U. S. Nat. Mus., Bull. Bulletin of the United States National Museum.
 U. S. Nat. Mus., Proc. Proceedings of the United States National Museum.
 Union S. Afr. Geol. Surv., Mem. Union of South Africa Geological Survey. Memoirs.
 Upsala Univ., Bull. Geol. Inst. Bulletin of the Geological Institution of the University of Upsala.
- Va. Geol. Surv., Bull. Bulletin of the Virginia Geological Survey.
 Ver. Natur. Mecklenburg, Arch. Archiv des Vereins der Freunde der Naturgeschichte in Mecklenburg.
 Ver. f. Erdk. Darmstadt, Notizb. Notizblatt des Vereins für Erdkunde zu Darmstadt.
 Ver. Naturk. Württ., Jahresh. Jahreshefte des Verein für vaterländische Naturkunde in Württemberg.
 Vermont State Geol., Rept. Report of the State Geologist on the Mineral Industries and Geology of Vermont.
 Vict. Geol. Surv., Bull. Bulletin of the Geological Survey of Victoria.
 Vict. Geol. Surv., Rec. Records of the Geological Survey of Victoria.
 Vict. Inst. London, Journ. Journal of the Transactions of the Victoria Institute, London.
- W. Austral. Geol. Surv., Bull. Bulletin of the Western Australia Geological Survey.
 Wagner Inst. Sci., Trans. Transactions of the Wagner Free Institute of Science, Phila.
 Wash. Acad. Sci., Proc. Proceedings and Journal of the Washington Academy of Science.
 Wash. Geol. Surv., Ann. Rept. Annual Report of the Washington Geological Survey.
 Wash. Geol. Surv., Bull. Bulletin of the Washington Geological Survey.

Wis. Geol. Surv., Bull. Bulletin of the Wisconsin Geological and Natural History Survey.

Wis. Nat. Hist. Soc., Bull. Bulletin of the Wisconsin Natural History Society.

Wyo. State Geol., Bul. Wyoming, Geologist's Office, Bulletin.

Yorks. Geol. Soc., Proc. Proceedings of the Yorkshire Geological Society.

Yorks. Nat. Union, Leeds, Trans. Transactions of the Yorkshire Naturalists' Union, Leeds.

Zeit. f. Gletscherk. Zeitschrift für Gletscherkunde.

Zeit. f. Kryst. Zeitschrift für Krystallographie und Mineralogie.

Zeit. f. prak. Geol. Zeitschrift für praktische Geologie.

Zeit. f. Vulkan. Zeitschrift für Vulkanologie.

Zool.-bot. Gesell. Wien, Abh. Abhandlungen der k. k. zool.-bot. Gesellschaft in Wien.

Zool. Rec. Zoological Record.



PART I

GENERAL BIBLIOGRAPHIES

A. Current¹ Bibliographies and Abstract Journals.

- 1 **American geological literature**, monthly authors' catalogue arranged alphabetically. *Am. Geol.*, 29-36, 1902-1905. 1902, vols. 29-30; 1903, vols. 31-32; 1904, vols. 33-34; 1905, vols. 35-36; (1902-05. Regional.)
- 2 **Annales des mines**. Bibliographie . . . 1896-1914. *Its Mém.* 9 sér. 9-20, 1896-1901; 10 sér. 1-20, 1902-11; 11 sér. 1-5, 1912-14;— (1896-1914. General.)
- 3 **Annuaire géologique et minéralogique de la Russie**. Vol. 1—Varsovie, 1896-? ; (1896-1913. Regional.) Each volume contains a bibliography for the year indexed by subject.
- 4 **Bibliographia geologica**. Répertoire des travaux concernant les sciences géologiques dressé d'après la classification décimale. . . . Bruxelles, 1897-? . (1896-1904. General.) Editors: 1897-, M. Murlon, with the collaboration of G. Simoens. In two series: A. Covering works published before 1896. B. Works published 1896-1904.
- 5 ***Bibliographie der deutschen naturwissenschaftlichen Litteratur**. Herausgegeben im Auftrage des Reichsanstes des Innern von deutschen Bureau der international Bibliographie in Berlin. Jena, I Jahrg. 1901.
- 6 **Bibliographie geologique du Portugal et de ses colonies 1893-** . [Beginning with 1913- by P. Choffat and E. Fleury. 1893-1895 bear titles of Bibliographie only.] *Portugal. Serv. geol., Comm.* 3- , 1895- . 1893-97, vol. 3, 104-108, 294-299 (134 entries); 1894-1900, vol. 4, 228-236 (112 entries); 1898-1902, vol. 5, 254-277 (175 entries); 1902-05, vol. 6, 197-210, 213, 365-376 (137 entries); 1906-07, vol. 7, 187-221 (86 entries); 1908-09, vol. 8, 181-216 (103 entries); 1910-12, vol. 9, 248-288 (154 entries); 1913, vol. 10, 234-263 (86 entries); 1914, vol. 11, 145-198 (120 entries). (1107 entries. 1893-1914. Regional.)
- 7 **Bibliography of North American geology for 1732-** with subject index . . . Washington, 1896- . U. S. Geol. Surv., Bull. 127- . 1732-1891, Bull. 127, authors and subjects combined; 1892-1900, Bulls. 188, 189 (6548 entries); 1901-1905, Bull. 301 (ca 10,946 entries); 1906-07, Bull. 372 (2672 entries); 1908, Bull. 409 (1215 entries); 1909, Bull. 444 (1305 entries); 1910, Bull. 495 (1410 entries); 1911, Bull. 524 (1266 entries); 1912, Bull. 545 (1275 entries); 1913, Bull. 584 (1357 entries); 1914, Bull. 617 (1357 entries); 1915, Bull. 645 (1227 entries); 1916, Bull. 665 (1281 entries); 1917, Bull. 684 (1194 entries); 1918, Bull. 698 (1099 entries); 1919, (1732- . Regional.) 1732-1891 by N. H. Darton. 1892-1895 by F. B. Weeks, 1906-07 by F. B. Weeks and J. N. Nickles. 1908- by J. N. Nickles.
- 8 **Bibliography of petroleum and allied substances**; by E. H. Burroughs. U. S. Bur. Mines, Bull. 149- . 1915, Bull. 149 (1455 entries); 1916, Bull. 165 (1357 entries); 1917, Bull. 180 (1489 entries); 1918, Bull. 189 (1725 entries); 1919-20, in press. (6026 entries. 1915- . General.)
- See 16.
- 9 **Förteckning öfver svensk geologisk, paleontologisk, petrografisk och mineralogisk litteratur** . . . av F.E. Åhlander. *Geol. Fören. Stockh. Förh.*, 23, 1901- . 1899-1900, vol. 23, 185-198 (231 entries); 1901-03, vol. 25, 432-448 (293 entries); 1904-06, vol. 29, 49-67 (271 entries); 1907-17, vol. 41, 539-606 (1036 entries); 1918-19, vol. 42, 453-464 (193 entries); (2024 entries. 1899-1919. Regional.)

¹The term "current" applies to the period of the bibliography, not to the date of publication. Many of the entries listed have ceased publication.

*Not seen.

- 10 **Geological society, London.** Geological literature added to the Geological society's library during the half-year ended December, 1894— [No. 1]— (1895— General.)
- 11 **Geologisches Zentralblatt**, 1, 1901— (General; covers literature of all countries by reviews and indexed.)
- 12 **Index bibliographique** . . . par N. I. Kristafovič. Ann. géol. et min. Russ., 7, 1895, 1901, vol. 7-II, 1-47, (2807 entries); 1902, vol. 8-II, 1-56, (2237 entries); 1903, vol. 9-II, 1-52, (2059 entries); 1904, vol. 10-II, 1-54, (2366 entries); 1905, vol. 11—, 1-82, (3358 entries includes Suppl. 1896-06); 1906, *1907, *1908, *1909, *1910, 1911, vol. 14—, 1-76, (1909 entries); *1912, vol. 15—, 1-90. (Regional.)
- 13 **International catalogue of scientific literature** . . . Published for the International Council by the Royal society of London, London, 1902— . G. Mineralogy. 1-14, 1901-1914; H. Geology. 1-14, 1901-1914; K. Paleontology. 1-14, 1901-1914. (General.)
- 14 **The Mining world index** of current literature. 1— . Chicago, 1912— (1912— . General.) Compiled and revised semi-annually from index of the world's current literature appearing weekly in Mining and Engineering world.
- 15 **Die palaeobotanische Literatur.** Bibliographische Übersicht über die Arbeiten aus dem Gebiete der Palaeobotanik; herausgegeben von W. J. Jongmans. 1 bd.— 1908— (General.)
- 16 **Recent articles on petroleum and allied substances;** compiled by E. H. Burroughs. U. S. Bur. Mines, Repts. Invest. Series no. 2044— . 1919, nos. 2044, 2062; 1920, nos. 2075, 2085, 2093, 2108, 2120, 2132, 2146, 2155, 2168, 2172, 2188, 2198. (1919— General.)
See 8.
- 17 **"Recent literature on economic geology"** [1905-1917]. Econ. Geol., 1-13, 1906-1918. (1905-17. General.)
- 18 **Revue de géologie et des sciences connexes.** 1— . Liège, 1920— . (General. Indexed by subjects, abstracted.)
- 19 ***Revue des travaux de paléontologie végétale** publiés dans la cours des années 1893-1906. Rev. gén. bot., 9, 1897: 324-346, 360-384, 399-415; 10, 1898: 26-32, 69-80; 14, 1902: 427-435, 487-496, 539-543; 15, 1903: 39-48, 83-89, 125-137, 186-192, 235-240, 328-336, 393-400; 470-480; 20, 1908: 40-44, 90-93, 183-187, 306-313, 345-349, 379-382, 412-414, 441-446, 461-464; 21, 1909: 39-46, 76-91, 117-123, 208-218, 248-254, 274-284.
- 20 **Royal society, London.** Catalogue of scientific papers. *Its* Vols. 9-17. [Third series] (1874-1883), A-Z. vol. 9-11, 1891-1896. Supplementary volume (1800-1883), 1902, vol. 12, 1902. Fourth series (1884-1900) A-P., vol. 13-17, 1914-1921. (1800-1900. General.)
- 21 **Technos.** Revue analytiques des publications techniques françaises et étrangères paraissant tous les mois. Paris, 1920— . 1— . (General. Brief illustrated abstracts issued monthly including applied geology, mineralogy and mining. Quarterly indices.)

*Not seen.

B. Indexes of Series, Official Publications, etc.

- 22 **Accademia della scienze di Torino.** Indici generali dei Volumi XLI-L dei Atti . . . Torino, 1916, 122 pp. (1905-15. General.)
- 23 **R. Accademie delle scienze fisiche e matematiche.** Naples. Indice generale dei lavori pubblicati dal 1737 al 1903 . . . (Classe della Società reale di Napoli); di Francesco Bassani. Napoli, 1904, pp. 1-111. (1737-1903. Regional.)
- 24 **K. Akademie der wissenschaften,** München. Register zu den Abhandlungen, Denkschriften und Reden . . . 1807-1913; zusammengestellt von A. Hilsenbeck. München, 1914, 201 pp. (1907-13. General.)

- 25 **K. Akademie der wissenschaften**, München. Register zu den ersten 50 Jahrgängen der Sitzungsberichte der mathematische-physikalische Klasse, 1860-1910; zusammengestellt von A. Hilsenbeck. München, 1913, 152 pp. (1860-1910. General.)
- 26 **American geologist**. Index for Volumes I-XXVI. *In* 36, no. 6, 1905, 150 pp. (1888-1905 General.)
- 27 **Annales des mines**. Table alphabétique et analytique des matières contenues dans la 9e série . . . Paris, 1904, 501 pp. (1892-1901. General.)
- 28 **Austria. Geologische Reichsanstalt**. General-register . . . Bände 41-50 des Jahresbuches und 1891-1900 der Verhandlungen . . . von Anton Matosch. Wien, 1905, 210 pp. Bände 51-60 des Jahresbuches und 1901-10 der Verhandlungen . . . von A. Matosch und E. Spengler. Wien, 1920, 267 pp. (1891-1910. General.)
- CALIFORNIA, *see* 606.
- 29 **Canada. Dept. of mines**. Mines branch. Catalogue of publications of the Mines branch (1907-1911) . . . Ottawa, 1912, 135 pp. *Its* Publ. no. 104. (1907-11. Regional.)
- 30 **Canada. Geological survey**. Annotated catalogue of and guide to the publications of the Geological survey, Canada, 1845-1917 by; W. F. Ferrier. Ottawa, 1920, 544 pp. *Its* Publ. no. 1723. (1845-1917. Regional.)
- 31 ———. General index to the reports of progress 1863-84; compiled by D. B. Dowling. Ottawa, 1900, 475 pp. (1863-84. Regional.)
- 32 ———. General index to reports 1885-1906; compiled by F. J. Nicholas. Ottawa, 1908, 1014 pp. (1885-1906. Regional.)
- 33 **Canadian mining institute**. Indices to names of authors and subjects of the papers presented to the Canadian mining institute, the Federated Canadian mining institute and the antecedent Provincial mining societies, 1891-1903; by B. T. A. Bell. Canad. Min. Inst., Trans. 6, 1903: 1-31. (1891-1903. Regional.)
- 34 **Cape of Good Hope**. Geological commission. Index to the annual reports . . . for the years 1896-1903; compiled by E. H. L. Schwarz. Cape Town, 1904, 52 pp. (1896-1903. Regional.)
- 35 **Deutsche geologische Gesellschaft**. Register . . . für die Bände 1-50 (1848-98). Berlin, 1903, 361 pp. (1848-98. General.)
- 36 ***Devonshire association**. [Transactions. Index to geological papers, Vols. I-XXIV, 1862-1902]; by J. G. Hamling. *Its* Trans. 38, 1905: 768-786.
- 37 **Fortschritte der praktischen Geologie** . . . Zugleich General-Register der Zeitschrift für praktische Geologie . . . ; von Max Krahmann. Jahrgang I bis X, 1893-1902. Berlin, 1903, 410 pp. Jahrgang XI bis XVII, 1903-09. Berlin, 1910, 454 pp. (1893-1909. General.)
- 38 **Geological magazine**. Index to . . . 1874-1903; compiled by Ellen S. Woodward. Edited by Henry Woodward. London, 1905, 295 pp. (1864-1903. General.)
- 39 **Geological society of America**. Bulletin . . . Index to volumes 1-10. Rochester, 1900, 209 pp. Index to volumes 11 to 20. N. Y., 1910, 422 pp. Index to volumes 21 to 30. N. Y., 1920, 325 pp. (1890-1919. Regional.)
- 40 **Geological society of South Africa**. Transactions and proceedings. Index to the first thirteen volumes 1897-1900 compiled by A. Reynell. Johannesburg and London, 1915, 196 pp. (1897-1900. Regional.)
- 41 **Geologische Rundschau**. Inhaltsverzeichnis zu Band I-V (1910-1914). *In* Vol. 5, 1915, 24 pp. (1910-14. General.)
- 42 **Geologische Zentralblatt**. General-register zu Band 1-15. Leipzig, n.d. 472 pp. (1901-11. General.)
- 43 **Geologiska föreningens i Stockholm förhandlingar**. General register till Band XI-XXI eller årgångarne 1889-99. Stockholm, 1900, 162 pp. (1889-99. Regional.)
- 44 ———. General register till Band XXI-XXXI eller årgångarne 1900-09. Stockholm, 1911, 102 pp. (1900-09. Regional.)
- 45 **Geologists' association, London**. A classified index to the contents of the Proceedings of the Geologists' association, Vols. I-XX; by G. W. Young and W. Wright.

*Not seen.

- In its* Vol. 21, 1909-10: i-xl. (1859-1908. General.)
- 46 ——. An index to the Proceedings of the Geologists' association, Vols. XXI-XXX, 1909-19, with a chronological list of the longer excursions; by G. S. Sweeting. London, 1920, 44 pp. (1909-19. General.)
- 47 *Gornyj Zurnal. Table générale . . . 1886-95 by A. O. Ivanov. St. Petersburg, 1902, pp. 1-118. 1896-1901 by Aleksej Karpinskij. St. Petersburg, 1902. 1902-05 by Aleksej Karpinskij. St. Petersburg, 1906.
- 47a Great Britain Geological Survey. List of memoirs, maps, sections, etc., published by the geological surveys of Great Britain and Ireland and the Museum of practical geology. To 31st May, 1918.
- 48 *Grenoble, Université. Annales. Tables alphabétique et analytique des vingt premières années (1889-1908). Paris, 1909, 42 pp.
- 49 India Geological Survey. [Memoirs.] Contents and index of . . . Vols. XXI-XXV, 1884-1911; by G. de P. Cotter. Calcutta, 1916, 119 pp. (1884-1911. Regional.)
- 50 ——. [Records.] Index to volumes XXI-XXX . . . 1887 to 1897. Calcutta, 1903, 50 pp. (1887-97. Regional.)
- INDIANA, *see* 1427.
- 51 Institution of mining engineers. [Transactions.] Vols. I-XXX. 1889-1905. Subject-matter and authors' indices; by Lawrence Austin. Newcastle-upon-Tyne, 1908, 116 pp. (1889-1905. General.)
- 52 ——. Vols. XXI-XL. 1906-11. Indices to names of authors and subjects . . . ; by Percy Strzelecki. London, 1911, 86 pp. (1906-11. General.)
- 53 ——. Vols. XLI-XLV. 1911-18. Indices to names of authors and subjects . . . ; by Percy Strzelecki. London, 1918, 84 pp. (1911-18. General.)
- ITALY, *see* 1476.
- 54 *Kiev, Université. Bulletin. Index systématique . . . pour les années 1861-1912. *Its* Bull. 1913, 9: 1-78; 10: 79-128; 11: 129-160; 12: 161-202. (1861-1912.)
- MARYLAND, *see* 1655a.
- 55 *[Matériaux pour les études du sol russe]. Inhaltsverzeichnis der "Materialy po izuceniju russkich povv" Lieferungen 1-23 (1885-1913) von N. Leontievskij. *Its* Vol. 23, 1913: 99-105. 1885-1913.
- 56 Naturwissenschaftlicher Vereins für Schleswig-Holstein, Kiel. Schriften . . . Register zu Band I-XII; von R. Gottschaldt. Kiel, 1904, 32 pp.
- 57 Neues Jahrbuch für Mineralogie, Geologie und Palaeontologie. Repertorium . . . für Jahrgänge 1895-99 und die Beilage-Bände IX-XII. Stuttgart, 1901, 429 pp. (1895-99. General.)
- 58 ——. Repertorium . . . für die Jahrgänge 1900-04, das Centralblatt für Mineralogie, Geologie und Palaeontologie Jahrgänge 1-5 (1900-04) und die Beilage-Bände XIII-XX. Stuttgart, 1906, 593 pp. 1900-04.
- 59 ——. Repertorium . . . für die Jahrgänge 1905-09 . . . Jahrgänge 1905-09 und die Beilage-Bände XXI-XXVIII. Stuttgart, 1911, 587 pp. (1905-09. General.)
- 60 New York state museum. Index to publications of the New York state natural history survey and New York state museum 1837-1902; by Mary Ellis. Albany, 1903, pp. 237-653. *Its* Bull. 66. (1837-1902. Regional.)
- 61 North of England institute of mining and mechanical engineers. Subject-matter index of mining, mechanical and metallurgical literature for the year[s] 1900-02. (1900-02. General.)
- 62 ——. Transactions. General and subject-matter indices. Vols. I to XXXVIII. 1852-89. Edited by M. Walton Brown. Newcastle-upon-Tyne, 1902, 244 pp. (1852-89. General.)
- 63 Oberhessische Gessellschaft für Natur- und Heilkunde, Giessen. Bericht. Register zu den Bänden 1-34 (alte Folge). Jahrgang 1849-1904). Giessen, 1910, 88 pp. (1849-1904. General.)
- 64 Oberrheinischer geologische Verein, Stuttgart. Der Oberrheinische geologische Verein in den vier ersten Jahrzehnten seines Bestehens (1871-1910) und seine Berichte. Geschichte des Vereins u Verzeichnis seiner Veröffentlichungen. Mit Authoren-, Orts, Sachregister und Mitgliederverzeichnis; von D. Häberle. *Its* Ber. u. Versamul., 43, 1910: 117-183.

*Not seen.

- (309 entries. 1871-1910 General.)
- 65 **Ohio. Geological Survey.** A subject index of the publications of the Geological survey of Ohio, from its inception to and including Bulletin eight of the Fourth series; by A. G. Derby. *Its Bull.* 6, pt. 1, 1906: 1-234. (1838-1906. Regional.)
- 66 **Ontario. Bureau of Mines.** List of publications including reports, maps and bulletins (revised to August 1, 1915); compiled by W. R. Rogers. Toronto, 1915, 24 pp. *Its Bull.* 25. (Regional.)
- 66a **Ontario. Bureau of Mines.** List of publications including reports, maps and bulletins for the years 1915 to 1919 inclusive; compiled by W. R. Rogers, Toronto, 1919, 6 p. (Bulletin 25a.)
- 67 ***La Pédologie.** Revue . . . pendant les premiers dix ans 1899-1908. Table systématique; par P. Otschij. St. Petersburg, 1909.
- 68 **Physikalisch-ökonomischen Gesellschaft, Königsberg in Pr.** Schriften . . . Generalregister zu den Jahrgängen 26-50. 1885-1909. Leipzig, 1911, 63 pp. (1885-1909. Regional.)
- 69 **Portugal. Servico geologico.** Communicações . . . Indice general dos tomos I a XII 1883-1918; redigido por Jules Choffat e revisto por Paul Choffat. Lisboa, 1920, 123 pp. *Its Vol.* 12, Suppl. (1883-1918. Regional.)
- 70 **Prussia. Geologische Landesanstalt.** Register über die ersten 20 Bände des Jahrbuches . . . Jahrg. I-XX (1880-1899). Berlin, 1910, 550 pp. (1880-99. Regional.)
- 71 **Queensland. Geological survey.** Index . . . to publications . . . ; by Russell Dixon. *Its Pub.* 135- . . . (1879-1920. Regional.) Nos. 1-134, Pub. 135, Brisbane, 1901, 26 pp. Nos. 136-177, Pub. 178, Brisbane, 1902, 38 pp. Nos. 178-196, Pub. 197, Brisbane, 1905, 38 pp. Nos. 198-213, Pub. 214, Brisbane, 1908, 56 pp. Nos. 215-226, Pub. 227, Brisbane, 1914, 52 pp. Nos. 228-239, Pub. 240, Brisbane, 1916, 34 pp. Nos. 243-254, Pub. 255, Brisbane, 1918, 62 pp. Nos. 256-265, Pub. 266, Brisbane, 1920, 44 pp.
- 72 **Revue critique de paléozoologie.** Deuxième table décennale (alphabétique par noms d'auteurs) des ouvrages analysés dans les tomes XI a XX (1907-1916); rédigée par Paul Bédé. Paris, 1917, 86 pp. (1907-1916. General.)
- 73 **Revue universelle des mines, de la métallurgie . . .** Quatrième série 1903-1912. Table des matières. Liège, 1916, 103 pp. (1903-1912. General.)
- 74 **Royal Canadian institute.** Toronto. General index to publications 1852-1912; compiled and edited by John Patterson. Toronto, 1914, 518 pp. (1852-1912. General.)
- 75 **Royal society of South Australia.** Index to the transactions, proceedings and reports. Volume I to XXIV, 1877-1900; compiled by R. J. M. Clucas. Adelaide, 1907, 448 pp. (1877-1900. General.)
- 76 **Russisch-kaiserliche mineralogische Gesellschaft zu St. Petersburg.** Systematisches Sachs- und Namen-Register zur zweiten Serie der Verhandlungen . . . und den Materialien zur Geologie Russlands 1895-1909; von P. V. Wittenburg. St. Petersburg, 1911, 113pp. (1895-1909. Regional.)
- 77 **Sociedad nacional de mineria,** Santiago de Chile. Indice jeneral del Boletin . . . desde el 15 de Diciembre de 1883 al 31 de Diciembre de 1919. *Its Bol.* Año 36, 33, 1920: 351-367, 436-452, 518-533, 601-618, 665-690, 772-811. (1883-1919. Regional.)
- 78 **Società geologica italiana.** Prospetti ed indici relativi ai vol. I-XX (1882-1901) compilati dall'archivista Antonio Neviani. Roma, 1902, 127 pp. *Its Bol.* 20, 1901. Appendix. (1882-1902. Regional.)
- 79 **Società sismologica italiana.** Indice generale dei 10 primi volumni del Bollettino ordinato per materia e per autori. *Its* 10, 1904-1905: 281-293, 295-305. (1895-1905. Regional.)
- 80 **Société belge de géologie de paléontologie et d'hydrologie.** Tables générales des matières des tomes I-XX du Bulletin . . . publiées sous la direction du . . . E. Van den Broeck. Bruxelles, 1907, 272pp. (1887-1906. Regional.)
- 81 ***Société des naturalistes de l'université impériale de Kazan.** Ver-

*Not seen.

- zeichniss der von der naturforschenden Gesellschaft in Kazan herausgegebenen Schriften (1894-1909). *Its Procès-verbaux*, 1908-09, 40, 1910, Suppl. 25: 1-20.
- 82 **Société française de minéralogie.** Bulletin. Deuxième table décennale des matières Volumes XI & XX. Paris, 1900, 90pp. (1888-97. General.)
- 83 ***Société impériale technique russe.** Section de Bakou. General-Register der "Kaiserlich-Russischen Gesellschaft, Abteilung Baku," von 1886 bis 1904; par I. M. Piter-skij. *Its Travaux*, 1904, 5:1-98, I-VIII.
- 84 **Société neuchateloise des sciences naturelles.** Tables des matières des 4 volumes de Memoires et des 25 premiers du Bulletin . . . par J. de Perregaux. Neuchatel, 1899, 185 pp. Contains sections on geology and paleontology and mineralogy, pp. 106-122.
- 84a **South Australia. Geological Dept.** Catalogue of the publications of the Geological Survey of South Australia; together with other official publications dealing with the geology and mineral resources of South Australia. *Its Ann. Rept.* 1914, Appendix: 11-22. (136 entries. 1859-1914. Regional.)
See also 2483
- 85 **Spain. Instituto geológico.** Indice geográfico de las publicaciones . . . (1873-1919). Madrid, 1919, 184pp. (1873-1919. Regional.)
- 86 **K. Svenska vetenskapsakademiens,** Stockholm. Kungl. Svenska vetenskapsakademiens skrifter 1826-1917. Register upprättadt af Elof Colliander. Stockholm, [1917], 687 pp. (1826-1917. General. Contains sections on geology, mineralogy, petrography, paleontology, paleobotany.)
TASMANIA. See 2647a
- 87 **Tschermak's mineralogische und petrographische Mitteilungen.** Register zu den bänden XI-XXV. Wien, 1907, 81 pp. (1890-1906. General.)
- 88 **U. S. Geological survey.** Catalogue and index of the publications of the Hayden, King, Powell, and Wheeler surveys . . . by L. F. Schmeckebier. Washington, 1904, 208pp. *Its Bull.* 222. (1867-79. Regional.)
- 89 **U. S. Geological survey.** Catalogue and index of the publications of the United States Geological Survey 1880 to 1901; by P. C. Warman. Washington, 1901, 858 pp. *Its Bull.* 177. (1880-1901 Regional.)
- 89a **U. S. Geological survey.** Catalogue and index of the publications of the United States Geological Survey 1901 to 1903; by P. C. Warman. Washington, 1903, 234 p. *Its Bull.* 215. (1901-03. Regional.)
- 90 **U. S. Geological survey.** A list of the publications of . . . (not including topographic maps). Washington, 1920, 187pp. (Issued several times a year.)
- 91 **Upsala, University of.** Geological institution. Index to bulletin . . . edited by H. Sjögren. Volumes I-X (1893-1910) with an appendix containing list of exchanges. Upsala, 1910, 59pp. (1893-1910. Regional.)
- 91a **Vienna. K. K. Naturhistorisches hofmuseum.** Bibliothekskatalog der mineralogisch-petrographischen Abteilung des K. K. Naturhistorischen hofmuseums nach dem stande vom 31 dezember 1909. Wien, 1911. 334 p.
- 92 **Western Australia. Geological survey.** General index to reports. 1870-1910. Perth, 1916, 230pp. *Its Bull.* 60. (1870-1910. Regional.)
- 93 **Zeitschrift für Krystallographie und Mineralogie.** Repertorium der mineralogischen und krystallographischen Literatur vom Anfang d. j. 1891 bis Anfang d. j. 1897 und Generalregister. . . . Band XXI-XXX; herausgegeben und bearbeitet von E. Weinschenk und F. Grünling. Leipzig, 1899, 394pp. (1893-1899. General.)
Zeitschrift für praktische Geologie. See Fortschritte der praktischen Geologie. No. 37.

*Not seen.

PART II

Subject Bibliographies

ABRASIVES.

- 94 MAGNUS, H. C. Abrasives of New York State. N. Y. State Mus. 23rd Rept. State Geol. 1903, 1904: 178-179. (45 entries. 1895-1902. Regional.)
See 1006, 1007, 1740a.

ABYSSINIA. See 2319.

ACADIA. See NOVA SCOTIA.

ADAPTATION. See 2809, 2811.

ADIRONDACK MOUNTAINS.

- 95 MILLER, W. J. The Adirondack mountains. Albany, 1917, 97pp. N. Y. State Mus., Bull. 193. (Bibl. 88-92. 82 entries. 1842-1917. Regional.)
See 2222.

ADRIATIC SEA.

- 96 MERZ, ALFRED. Die meereskundliche Literatur über die Adria mit besonderer Berücksichtigung der Jahre 1897-1909. Das Meeresbecken, Hydrographie, Meteorologie. Geogr. Jahresb. 8, 1910: 33-69. (280 entries. 1897-1909. Regional.)

ADULA ALPS. See 190.

AENIGMATITE.

- 97 SOELLNER, J. Literatur über Änigmatit und änigmatitähnliche Mineralien. N. J. f. Min., B. B. 24, 1907: 478-479. (14 entries. 1865-1906. General.)

AEOLIAN GEOLOGY. See EOLIAN GEOLOGY.

AFGHANISTAN.

- 98 HAYDEN, H. H. The geology of northern Afghanistan. Calcutta, 1911, 97pp. India Geol. Surv., Mem. 39, I. (Bibl. 82-84. 33 entries. 1838-1910. Regional.)
99 SEWARD, A. C. Mesozoic plants from Afghanistan and Afghanistan-Turkistan. Calcutta, 1912, 57pp. India Geol. Surv. Mem., Pal. Ind. n. s. 4, Mem. 4. (Bibl. 49-54. 138 entries. 1828-1911. General.)

AFRICA.

- 100 ARLDT, T. Die Paläogeographie des Nillandes in Kreide und Tertiär. Geol. Rundsch. 9, 1918: 47-51. (101 entries. 1868-1915. Regional.)
101 ARLDT, T. Die Verbindung Madagascars mit Afrika in der geologischen Vorzeit. Geol. Rundsch.

- 10, 1919: 63-65 (66 entries 1894-1916. Regional.)
102 BEHREND, FRITZ. Die Stratigraphie des östlichen Zentralafrika unter Berücksichtigung der Beziehungen zu Südafrika. Berlin, 1918, 148pp. Beitr. geol. Erfors. Deuts. Schutz. 15. (Bibl. 6-27. 301 entries. 1891-1917. Regional.)
103 CHUDEAU, R. Recherches sur la tectonique de l'Afrique occidentale. Soc. géol. France., Bull. 4 sér. 18, 1918:84-87. (80 entries. 1882-1918. Regional.)
104 GUILLEMAIN, C. Ergebnis der Untersuchungen verschiedener Bodenarten Kameruns. Prussia. Geol. Landesanst., Abh. n. f. 62, 1909: 433. (9 entries. 1891-1905. Regional.)
105 HENNIG, EDWIN. Zur Paläogeographie des afrikanischen Mesozoikums. Branca Festschrift, 1914: 120-123. (95 entries. 1870-1913. Regional.)
106 KNOX, ALEXANDER. Notes on the geology of the continent of Africa. with an introduction and bibliography. London, 1905, 165pp. (Bibl. 115-140. 757 entries. 1790-1905. Regional.)
107 KOERT, W. Ergebnisse der neueren geologischen Forschung in den deutschafrikanischen Schutzgebieten. Berlin, [1914], 264 pp. Beitr. geol. Erfors. Deuts. Schutz. 1. (Bibl. 4-5. 391 entries. 1896-1913. Regional.)
108 KRENKEL, E. Die Entwicklung der Kreideformation auf dem afrikanischen Kontinente. Geol. Rundsch. 2, 1911: 330-334. (109 entries. 1852-1911. Regional.)
109 LEMOINE, PAUL. Afrique occidentale. . . . Heidelberg, 1913, 88 pp. Handb. reg. Geol. 14. (Bibl. 66-78. 374 entries. 1850-1911. Regional.)
110 STUDDT, F. E. The geology of Katsanga and northern Rhodesia; an outline of the geology of south central Africa. Geol. Soc. S. Afr., Trans. 16, 1913: 98-102. (92 entries. 1807-1910. Regional.)

See 1614a, 2182, 2790.

See also subdivisions as Algeria;

- Angola; Belgian Congo; East Africa; Kamerun; Madagascar; Mozambique; Nile; Salvages Island; South Africa; Southwest Africa; Togo; Tunis.
- ALABAMA.** See 655, 859, 1652, 2323.
- ALASKA.**
- 111 **ATWOOD, W. W.** Geology and mineral resources of parts of the Alaska Peninsula. Washington, 1911, 137pp. U. S. Geol. Surv., Bull. 467. (Bibl. 132-133. 39 entries. 1871-1909. Regional.)
 - 112 **BROOKS, A. H.** The geography and geology of Alaska. A summary of existing knowledge. . . . Washington, 1906, 327pp. U. S. Geol. Surv., Prof. Paper 45. (Publ. 298-308. 283 entries. 1782-1906. Regional.)
 - 113 **BROOKS, A. H.** The geography of Alaska, with an outline of the geomorphology. Int. Geog. Cong., Rept. 8, 1905: 204-230. (34 entries. 1890-1904. Regional.)
 - 114 **BROOKS, A. H.** The mineral resources of Alaska. Am. Min. Cong. 1905, 1906: 209-214. (23 entries. n.d. Regional.)
 - 115 **BROOKS, A. H.** Recent publications on Alaska and Yukon Territory. Econ. Geol. 1, 1906: 340-359. (29 entries. n.d. Regional.)
 - 116 **CAPPS, S. R.** The Chisana-White river district, Alaska. Washington, 1916, 130pp. U. S. Geol. Surv., Bull. 630. (Previous work, 10-11. 8 entries. 1892-1914. Regional.)
 - 117 **CAPPS, S. R., and JOHNSON, B. L.** The Ellamar district, Alaska. Washington, 1915, 125pp. U. S. Geol. Surv., Bull. 605. (Literature, 52-61. 21 entries. 1899-1913. Regional.)
 - 118 **FAY, A. H.** Geology and mining of the tin-deposits of Cape Prince of Wales, Alaska. Am. Inst. M. E., Trans., 38, 1908: 682 (14 entries. 1903-07. Regional.)
 - 119 **HANNA, G. D.** Bibliography of Pribilof Islands, geology and paleontology. Am. Journ. Sci. 4 ser. 48, 1919: 223. (10 entries. 1850-1919. Regional.)
 - 120 **HARRINGTON, G. L.** The Anvik-Andreafski region Alaska (including the Marshall district). Washington, 1918, 70pp. U. S. Geol. Surv., Bull. 683. (Early history and previous work, 6-9. 18 entries. 1842-1915. Footnotes.)
 - 121 **LEFFINGWELL, E. DE K.** The Canning river region northern Alaska. U. S. Geol. Surv., Prof. Paper 109, 1919: 69. (21 entries. 1826-1912. Regional.)
 - 122 **MOFFIT, F. H., and KNOPF, ADOLPH.** Mineral resources of the Nabesba-White river district, Alaska. . . . Washington, 1910, 64pp. U. S. Geol. Surv., Bull. 417. (Bibl. 9. 4 entries. 1892-1903. Regional.)
 - 123 **POMPECKJ, J. F.** Jura-fossilien aus Alaska. Russ. k. min. Gesell., Verh. 2 ser. 38, 1900: 243-244. (10 entries. 1850-1900. Regional.)
 - 124 **PURINGTON, C. W.** Methods and costs of gravel and placer mining in Alaska. Washington, 1905, 273pp. U. S. Geol. Surv., Bull. 263. (Bibl. 261-262. 36 entries. 1885-1905. Regional.)
 - 125 **SCHRADER, F. C.** A reconnaissance in northern Alaska across the Rocky Mountains . . . and the Arctic coast to Cape Lisburne, in 1901. Washington, 1904, 139pp. U. S. Geol. Surv., Prof. Paper 20. (List of works, 31-33. 40 entries. 1784-1902. Regional.)
 - 126 **TARR, R. S., and MARTIN, LAWRENCE.** Alaskan glacier studies of the National Geographical Society in the Yakutat Bay, Prince William Sound and lower Copper river regions. Washington, 1914, 498pp. (Many footnotes. Regional.)
 - 127 **WRIGHT, F. E., and C. W.** The Ketchikan and Wrangell mining districts, Alaska. Washington, 1908, 210pp. U. S. Geol. Surv., Bull. 347. (Literature, 14-15. 14 entries. 1863-1906. Regional.) See 466, 715, 734, 1617, 2048, 2680, 2727.
- ALBANIA.**
- 128 **ARTHABER, GUSTAV VON.** Die Trias von Albanien. Beitr. Paläont. Oesterr.-Ung. 24, 1911: 195-196. (44 entries. 1878-1910. Regional.)
 - 129 **GOEBEL, FRITZ.** Eine geologische Kartierung im mazedonisch-albanischen Grenzgebiet beiderseits des Ochrida-Sees. Sachs. Akad. Wissen. Leipzig, Ber. u. d. Verh. 71, 1919: 275-276. (18 entries. 1894-1918. Regional.)
 - 130 **NOPCSA, F. BARON.** Zur Geologie von Nordalbanien. Austria. Geol. Reichsanst., Jahrb. 55, 1905: 144-146. (97 entries. 1837-1904. Regional.)
 - 131 **NOPCSA, F. BARON.** Zur Geschichte der Kartographie Nordalbanien. Geogr. Gesell. Wien, Mitth. 59,

1916: 579-585. (128 entries. 1513-1915. Regional.)

ALBERTA.

- 132 DOWLING, D. B. Geological notes to accompany map of Sheep river gas and oil field, Alberta. Ottawa, 1914, 26pp. Canada Geol. Surv., Mem. 52. Geol. ser. 42. (Bibl. 22. 17 entries. n.d. Regional.)

- 133 GWILLIM, J. C. A partial bibliography of publications referring to the geology and mineral industry of Alberta, British Columbia and the Yukon. Canad. Min. Inst., Journ. 11, 1908: 433-444. (172 entries. 1876-1907. Regional.)

- 134 STEWART, J. S. Geology of the disturbed belt of southwestern Alberta. Ottawa, 1919, 71pp. Canada Geol. Surv., Mem. 112. Geol. ser. 93. (Bibl. 2-3. 19 entries. 1875-1915. Regional.)

See 465, 519, 618, 933, 2155.

ALGAE.

- 135 KARPINSKY, A. Die Trochiliskien. St.-Petersbourg, 1906, 166pp. Russian and German text. Russia. Com. géol., Mem. n.f. 27. (Literatur, 161-163. 93 entries. 1809-1901. General.)

- 136 PIA, JULIUS V. Neue studien über die triadischen Siphoneae verticillatae. Beitr. Paläont. Oesterr.-Ung., 25, 1912: 61-65. (134 entries. 1841-1910. General.)

See 2071.

ALGERIA.

- 137 BLAYAC, JOSEPH. Esquisse géologique du bassin de la Seybouse et de quelques régions voisines. Alger, 1912, 488pp. (Bibl. 36-56. 294 entries. 1743-1910. Regional.)

- 138 DARESTE DE LA CHAVANNE, J. Recherches géologiques et paléontologiques dans la région de Guelma (Algérie). Alger, 1910, 317pp. (Princ. publ., 19-24. 97 entries. 1838-1909. Regional.)

- 139 GENTIL, LOUIS. Esquisse stratigraphique et pétrographique du bassin de la Tafna (Algérie). Alger, 1902, 536 pp. (Publ., 43-60. 211 entries. 1743-1901. Regional.)

- 140 JOLEAUD, LÉONCE. Étude géologique de la chaîne numidique et des monts de Constantine (Algérie). Montpellier, 1912, 436pp. (Bibl. 11-21. 154 entries. 1838-1911. Regional.)

*Not seen.

- 141 LISTE des principales publications concernant les régions traversées par la société. Soc. géol. France, Bull. 3 ser. 24, 1896: 918-922. (103 entries. 1830-96. Regional.)

- 142 *PLAYFAIR, R. L. Supplement to the bibliography of Algeria. London, 1898.

- 143 SAVORNIN, J. Étude géologique de la région du Hodna et du plateau Sétifien. Alger, 1920, 499pp. Algeria. Serv. carte géol., Bull. 2 ser. 7. (Bibl. 13-32. 369 entries. 1743-1918. Regional.)

- 143a STAINIER, X. Les tufs gypseux et calcaires du Bas-Sahara. Soc. belge géol. Brux., Bull. 26, 1912: 119-20. (18 entries. 1862-1910. Regional.)

See 2160a, 2164.

ALKALI DEPOSITS.

- 144 SCHULTZ, A. R. Deposits of sodium salts in Wyoming. U. S. Geol. Surv., Bull. 430, 1910: 589. (19 entries. 1842-1904. Regional.)

ALPS.

- 145 AMPFERER, OTTO and HAMMER, WILHELM. Geologischer Querschnitt durch die Ostalpen vom Allgäu zum Gardasee. Austria. Geol. Reichsanst., Jahrb. 61, 1911: 571, 603-604, 631-632, 640, 662-663, 709. (130 entries. 1853-1911. Regional.)

- 146 ANGELIS D'OSSAT, G. DE. Seconda contribuzione allo studio della fauna fossile paleozoica delle Alpi Carniche. Accad. d. Lincei., Atti. ser. 5, Mem. 3, 1899: 11-13. (54 entries. 1832-98. Regional.)

- 147 BISTRAM, A. *freiherr* von. Das Dolomitgebiet der Luganer Alpen. Geologische-paläontologische Studien in die Comasker Alpen. II. Naturf. Gesell. Freiburg i. B., Ber. 14, 1904: 3-6. (82 entries. 1852-1903. Regional.)

- 148 BLAAS, J. Geologischer Führer durch die Tiroler- und Vorarlberger Alpen. Innsbruck, 1902, 7v. in 1. 983pp. (6. Literatur und Register, 847-906. 1057 entries. 1850-1902. Regional.)

- 149 BLANCHARD, RAOUL. La structure des Alpes. Grenoble, Univ., Ann. 27, 1915: 322-325. (41 entries. 1883-1912. Regional.)

- 150 BONNEY, T. G. The building of the Alps. London, 1912, 384pp. (46 entries. 1871-1911. Regional.)

- 151 CORNELIUS, H. P. Über einige Probleme der penninischen Zone der Westalpen. Geol. Rundsch.,

- 11, 1921; 316-318. (62 entries. 1881-1921. Regional.)
- 152 CORNELIUS, H. P. Zur Kenntnis der Wurzelregion in unteren Veltlin. N. J. f. Min., B. B. 40, 1916: 361-363. (31 entries. 1851-1915. Regional.)
- 153 FINISTERWALDER, SEBASTIAN, and LEGALLY, MAX. Die Neuvermessung des Suldenferners 1906 und dessen Veränderungen in den letzten Jahrzehnten. Zeit. f. Gletscherk., 7, 1912: 182. (20 entries. 1857-1912. Regional.)
- 154 FUTTERER, K. Die oberen Kreidebildungen der Umgebung des Lago di Santa Croce in den Venetianer Alpen. Paläont. Abh., n.f. 2, I, 1892: 5-7. (67 entries. 1824-91. Regional.)
- 155 GAGNEBIN, E. Les sources du massif de Morcles. Lausanne, Univ. Lab. géol., Bull. 20, 1916: 32-33. (16 entries. 1890-1916. Regional.)
- 156 HAHN, F. F. Allgäuer Alpen und angrenzende Gebiete. Geol. Rundsch., 2, 1911: 207-208. (17 entries. 1902-11. Regional.)
- 157 HAHN, F. F. Ergebnisse neuer Spezialforschungen in den deutschen Alpen. Geol. Rundsch., 5, 1915: 112-114 (44 entries 1866-1912. Regional.)
- 158 HAMMER, WILHELM. Die Ortlergruppe und der Ciavaltatschkamm. Austria. Geol. Reichsanst., Jahrb. 58, 1908: 81-82. (29 entries. 1840-1907. Regional.)
- 159 HANIEL, C. A. Die geologischen Verhältnisse der Südabdachung des Allgäuer Hauptkammes und seiner südlichen Seitenäste von Rauhgera bis zum Wilden. Deutsch. geol. Gesell., Zeit. 63, 1911: 35-37. (63 entries 1850-1909. Regional.)
- 160 HEIM, ARNOLD. Zur Tektonik des Flysches in den östlichen Schweizeralpen. Beitr. geol. Karte Schweiz. n.f. 31, III, 1911: 37 (20 entries. 1908-10. Regional.)
- 161 HERITSCH, FRANZ. Fortschritte in der geologischen Kenntnis der Zentralalpen westlich von Brenner. IV. Das Gebirge westlich von Brenner. Geol. Rundsch., 3, 1912: 557-559. (65 entries. 1902-12. Regional.)
- 162 HERITSCH, FRANZ. Fortschritte in der Kenntnis des geologischen Baues des Zentralalpen östlich von Brenner. I. Die Hohen Tauern. Geol. Rundsch., 3, 1912: 172-174. (58 entries. 1903-10. Regional.)
- 163 HERITSCH, FRANZ. Die österreichischen und deutschen Alpen bis zur alpino-dinarischen Grenze (Ostalpen). Heidelberg, 1915, 153pp. Handb. reg. Geol., 18. (Literatur, 143-151. 254 entries. 1855-1914. Regional.)
- 164 IMKELLER, HANS. Die Kreidebildungen und ihre Fauna am Stalauer Eck und Enzenauer Kopf bei Tölz. Palaeontographica, 48, 1901: 63-64. (64 entries. 1792-1895. Regional.)
- 165 JACCARD, FRÉDÉRIC. La région de la Brèche de la Horngluh (Préalpes bernoises). Lausanne, Univ. Lab. géol., Bull. 5, 1904: 7-9.
- 166 JACCARD, FRÉDÉRIC. La région Rubli-Gummfluh (Préalpes médianes). Suisse. Lausanne, Univ. Lab. géol., Bull. 11, 1908: 134-136. (37 entries. 1834-1906. Regional.)
- 167 KILIAN, W., and RÉVIL, J. Études géologiques dans les Alpes occidentales. Contributions à la géologie des chaînes intérieures des Alpes françaises. I. Paris, 1904, 627pp. France. Serv. carte géol., Mém. (Bibl. 393-504. 1188 entries. 1778-1904. Regional.)
- 168 KOBER, L. Alpen und Dinariden. Geol. Rundsch. 5, 1915: 175-176. (30 entries. 1887-1912. Regional.)
- 169 LEBLING, CLEMENS. Ergebnisse neuerer Spezialforschungen in den deutschen Alpen. 2. Die Kreideschichten der bayerischen Voralpenzone. Geol. Rundsch. 3, 1912: 483-484. (47 entries. 1837-1912. Regional.)
- 170 LORENZ, TH. Monographie des Fläscherberges. Bern, 1900, 63pp. Beitr. geol. Karte Schweiz, n.f. 10. (Literatur, iii-iv. 27 entries. 1842-96. Regional.)
- 171 LUGEON, MAURICE. Les Lautes Alpes calcaires entre la Lizerne et la Kander (Wildhorn, Wildstrubel, Balmhorn et Torrenthorn) . . . Berne, 1914, 94pp. Matér. carte géol. Suisse. n.s. 30. (Works, 4-10. 183 entries. 1478-1913. Regional.)
- 172 MARTONNE, EMMANUEL DE. Recherches sur l'évolution morphologique des Alpes de Transylvanie (Karpates méridionales). Paris, [1907], 286pp. (Bibl. xi-xxi. 176 entries. 1833-1906. Regional.)

- 173 MATCHATSCHEK, FRITZ. Die landeskundliche Literatur der österreichischen Alpenländer in den Jahren 1906-10. Geogr. Jahresh., 9, 1911: 1-37. (319 entries. 1906-1910. Regional.)
- 174 OBERHUMMER, EUGEN. Die ältesten Karten der Ostalpen. Deutsch. u. oesterr. Alpenver., Zeit. 38, 1907: 1-14. (27 entries. 1523-1906. Regional.)
- 175 OBERHUMMER, EUGEN. Die ältesten Karten der west-Alpen. Deutsch. u. oesterr. Alpenver., Zeit. 40, 1909: 1-20. (49 entries. 1620-1907. Regional.)
- 176 PENCK, ALBRECHT, and BRÜCKNER, EDUARD. Die Alpen in eiszeitlicher. 3 vols. Leipzig, 1909. (Bibl. footnotes. 130 entries. 1845-1904. Regional.)
- 177 PONTOPPIDAN, HARALD. Die geologischen Verhältnisse des Rappentalpentes sowie der Berkette zwischen Breitach und Stillach. Geogn. Jahresh., 31, 1910: 19-21. (81 entries. 1829-1909. Regional.)
- 178 PREISWERK, H. Oberes Tessin- und Maggiagebiet. (Geologische Beschreibung der Lepontinischen Alpen, 2. teil). Bern, 1918, pp. 43-80. Beitr. geol. Karte Schweiz, 26. (Literatur, 78-80. 71 entries. 1783-1918. Regional.)
- 179 RASSMUSS, H. Der Gebirgshau der lombardischen Alpen. Deutsch. geol. Gesell., Zeit. 65, 1913, Monatsberichte, 86-88. (57 entries. 1880-1912. Regional.)
- 180 SACCO, FEDERICO. Les Alpes occidentales. Schéma géologique. Turin, 1913, 196pp. (Bibl. 5-12. ca 100 entries. 1358-1913. Regional.)
- 181 SALOMON, WILHELM. Die Adamellogruppe, ein alpines Zentralmassiv, und seine Bedeutung für die Gebirgsbildung und unsere Kenntnis von dem Mechanismus der Intrusionen. I Teil. Wien, 1908, 433pp. Austria. Geol. Reichsanst., Abh. 21, 1. (Literatur, 9-14. 130 entries. 1808-1907. Regional.)
- 182 SCHLAGINTWEIT, OTTO. Geologische Untersuchungen in den Bergen zwischen Livigno, Bormio und St. Maria im Münstertal. Deutsch. geol. Gesell., Zeit. 60, 1908: 271-272. (25 entries. 1851-1906. Regional.)
- 183 SCHMIDT, C., and PREISWERK, H. Literaturverzeichnis zur Geologie der Lepontinischen Alpen bis Juli 1907. Beitr. geol. Karte Schweiz, 26, I, 1907: ix-xiv. (90 entries. 1796-1907. Regional.)
- 184 SCHWINNER, ROBERT. Dinariden und Alpen. Geol. Rundsch., 6, 1915: 21-22. (36 entries. 1881-1914. Regional.)
- 185 STAFF, HANS v. Zur Morphogenie der Präglaziallandschaft in den Westschweizer Alpen. Deutsch. geol. Gesell., Zeit. 64, 1912: 75-80. (149 entries. 1878-1911. Regional.)
- 186 STAUB, RUDOLF. Über Faciesverteilung und Orogenese in den südöstlichenSchweizeralpen. Bern, 1917, 198pp. Beitr. geol. Karte Schweiz, n.f. 46, III abt. (Literatur, v-viii. 105 entries. 1864-1916. Regional.)
- 187 STAUB, RUDOLF. Zur Tektonik der südöstlichenSchweizeralpen. Bern, 1916, 41pp. Beitr. geol. Karte Schweiz, n. f. 46, I abt. (Literatur, vii-viii. 56 entries. 1839-1915. Regional.)
- 188 TRÜMPY, DANIEL. Geologische Untersuchungen im westlichen Rhätikon. Bern, 1916, 163pp. Beitr. geol. Karte Schweiz, n. f. 46, II abt. (Literatur, v-viii. 105 entries. 1809-1913. Regional.)
- 189 VAN de WIELE, C. Les théories nouvelles de la formation des Alpes et l'influence tectonique des affaissements Méditerranéens. Soc. belge géol., Brux., Bull. 19, 1905: 439-440. (38 entries. 875-1905. Regional.)
- 190 WILCKENS, OTTO. Beiträge zur Geologie des Rheinwalds und von Vals (Adulagebirge, Graubünden). Geol. Rundsch., 11, 1920: 49-51. (59 entries. 1873-1918. Regional.)
- 191 WILCKENS, OTTO. Neuere Arbeiten über die Voralpen zwischen Genfer und Thuner See, 1908-11, (z.T.) Geol. Rundsch. 3, 1912: 374. (19 entries. 1908-11. Regional.)
- 192 WILCKENS, OTTO. Über mesozoische Faltungen in den tertiären Kettengebirgen Europas. Geol. Rundsch. 2, 1911: 261-263. (35 entries. 1903-11. Regional.)
- 193 WILCKENS, OTTO. Wo liegen in den Alpen die Wurzeln der Überschiebungsdecken? Geol. Rundsch. 2, 1911: 314-316. (44 entries. 1902-10. Regional.)
- 194 WINKLER, ARTUR. Das mittlere Isonzogegebiet. Austria. Geol. Reichsanst., Jahrb. 70, 1920: 15. (25 entries. 1857-1920. Regional.)

- 195 ZYNDEL, F. Über den Gebirgsbau Mittelbündens. Beitr. geol. Karte Schweiz, n. f. 41, 1912: 36-38. (75 entries. 1839-1911. Regional.)
See 357, 359a, 1196, 1197, 1241, 2429.
See also Austria; Switzerland and local subdivisions.

ALSACE LORRAINE.

- 196 BENECKE, E. W. Über die 'Dolomitische region' in Elsass-Lothringen und die Grenze von Muschelkalk und Lettenkohle. Alsace Lorraine. Geol. Landesanst., Mitth. 9, I, 1914: 111-122. (222 entries. 1821-1914. Regional.)
- 197 BENECKE, E. W. Die versteinerungen der eisenerzformation von Deutsch-Lothringen und Luxemburg. Strassburg i. E., 1905, 598pp. Alsace Lorraine. Geol. Landesanst., Abh. n. f. 6. (Literatur, 569-592. 305 entries. 1748-1904. General.)
- 198 BÜCKING, H. Beiträge zur Geologie des oberen Breuschtals in den Vogesen. Alsace Lorraine. Geol. Landesanst., Mitth. 12, 1918: 63-65. (37 entries. 1789-1918. Regional.)
- 199 GIGNOUX, M., and HOFFMAN, C. Le bassin pétrolière de Péchelbronn (Alsace). Étude géologique. Alsace Lorraine. Serv. Carte géol., Bull. 1, 1920: 43-44. (26 entries. 1895-1920. Regional.)
- 200 KESSLER, PAUL. Die tertiären Kestenkonglomerate in der Mittelrheinischen Tiefebene mit besonderer Berücksichtigung der elsässischen Vorkommen. Alsace Lorraine. Geol. Landesanst., Mitth. 7, 1911: 281-290. (173 entries. 1824-1908. Regional.)
- 201 *KESSLER, P., and WILLING, H. Die geologische, mineralogische und palaeontologische Literatur des Saarbeckens bis zum Jahre 1910. Saarbrücken, 1911, viii + 139pp.
- 202 KISSLING, ALFRED. Geologische und petrographische Untersuchungen aus dem Granitgebiet von Barrandlau. Alsace Lorraine. Geol. Landesanst., Mitth. 9, 1916: 281-282. (16 entries. 1841-1913. Regional.)
- 203 LIEBHEIM, E. Beiträge zur kenntnis der lothringischen kohlengebirges. Strassburg, 1900, 292pp. Alsace Lorraine. Geol. Landesanst., Abh. n. f. 4. (Literatur, 287-288. 28 entries. 1840-1895. Regional.)
- 204 SCHNAEBELE, ERNST. Die Mineralgänge des oberen Dollertales und ihre Nebengesteine. Alsace Lorraine. Geol. Landesanst., Mitth. 9, 1916: 268-270. (55 entries. 1771-1913. Regional.)
- 205 WAGNER, W. Vergleich der jüngeren Tertiärablagerungen des Kalisalzgebietes im Oberelsass mit denen des Mainzer Beckens. Alsace Lorraine. Geol. Landesanst., Mitth. 8, 1913: 286-287. (17 entries. 1854-1913. Regional.)
See 64, 482, 1444, 1602, 2005a, 2214.

ALTAI MOUNTAINS.

- 206 GRANÖ, J. G. Les formes du relief dans l'Altaï Russe et leur genèse. Helsingfors, 1917, [128]pp. Fennia, 40, No. 2. (Bibl. 122-125. 92 entries. 1769-1915. Regional.)
- 207 HERGENREDER, J. Zur Kenntnis des Altaïs. Zeit f. prak. Geol., 17, 1909: 166-177. (18 entries. 1853-1905. Footnotes.)

ALUMINIUM. See 419, 420, 421, 1740a.

AMBER

- 208 DAHMS, PAUL. Über rumänischen Bernstein. Centralbl. f. Min. 1920: 117-118. (18 entries. 1891-1920. Regional.)
See 1430.

AMBON ISLAND.

- 208a VERBEEK, R. D. M. Geologische beschrijving van Ambon. Jaarb. Mijnw. Ned. O.-Ind., 34, 1905, Wetenschap. gedeelte, 23-27. (50 entries. 1705-1903. Regional. French edition with title: Description géologique de l'île d'Ambon. Batavia, 1905, 323pp.)

AMMONITES. See AMMONOIDEA.

AMMONOIDEA.

- 209 BÖSE, EMIL. On a new ammonite fauna of the Lower Turonian of Mexico, Texas, Univ., Bull. 1856, 1918: 180-183. (41 entries. 1849-1912. General.)
See 1519.
- 210 BOGOSLOWSKY, N. A. Materialien zur Kenntniss der untercretacischen Ammonitenfauna von central- und nord-Russland. St. Petersburg, 1902, 161 pp. Russian text. German résumé. Russia. Com. géol., Mém. n. s. 2. (Literature, 3-4. 50 entries. 1822-1900. Regional.)
- 211 COLLOT, LOUIS. Les Aspidoceras des couches a minerai de fer de la côte d'Or. Soc. géol. France. Bull. 4 sér. 17, 1917: 18-19. (22 entries. 1849-1907. Regional.)
- 212 DOUVILLE, HENRI. Évolution et classification des Pulchelliidés.

*Not seen.

- Soc. géol. France., Bull. 4 sér. 11, 1911: 285-286. (28 entries. 1890-1911. General.)
- 213 FAVRE, FRANÇOIS. Die Ammoniten der unteren Kreide Patagoniens. N. J. f. Min., B. B. 25, 1908: 602-608. (122 entries. 1827-1907. Regional.)
- 214 FRECH, F. Ammoniae Devonicae (Clymeniidae, Aphyllitidae, Gephyroceratidae, Cheiloceratidae). Berlin, 1913, 42pp. Fossilium catalogus, I: Animalia. I. (29 entries. 1832-1913. General.)
- 215 HORN, ERICH. Die Harpoceraten der Murchisonae-Schichten des Donau-Rhein-Zuges. Baden. Geol. Landesanst., Mitth. 6, 1912: 255-256. (36 entries. 1842-1908. Regional.)
- 216 HYATT, ALPHEUS. Pseudoceratites of the Cretaceous. Edited by T. W. Stanton. Washington, 1903, 351pp. U. S. Geol. Surv., Mon. 44. (Bibl. 246-250. 82 entries. 1834-1900. General.)
- 217 KLEBELSBERG, R. v. Die Perisphincten des Krakauer Unteroxfordien. Ein Beitrag zur Systematik der Oxford-Perisphincten. Beitr. Paläont. Oesterr.-Ung. 25, 1912: 217-219. (109 entries. 1818-1908. General.)
- 218 LASSWITZ, RUDOLF. Die Kriede-Ammoniten von Texas. (Collectio f. Roemer.) Jena, 1904, 40pp. Geol. u. paläont. Abh., n. f. 6, hft. 4. (110 entries. 1822-1902. General.)
- 219 LOCZY, LUDWIG. Monographie de Villanyer Callovien-Ammoniten. Geol. Hung., I, 1915: 7-20. (544 entries. 1742-1913. General.)
- 220 O'CONNELL, MARJORIE. The Jurassic Ammonite fauna of Cuba. Am. Mus. Nat. Hist., Bull. 42: 1920: 691-692. (31 entries. 1818-1912. General.)
- 221 PARISCH, CLELIA, and VIALE, CLELIA. Contribuzione allo studio della ammoniti del Lias superiore. Riv. ital. paleont., 12, 1906: 142-144. (31 entries. 1862-1905. General.)
- 222 PETRASCHECK, WILHELM. Die Ammoniten der sächsischen Kreideformation. Beitr. Paläont. Oesterr.-Ung. 14, 1902: 160-162. (70 entries. 1842-1900. General.)
- 223 PHILIPPI, E. Der Ceratiten des oberen deutschen Muschelkalkes. Geol. u. paläont. Abh., n. f. 4, hft. 4, 1901: 5-7. (89 entries. 1718-1900. General.)
- 224 RONCHADZE, JEAN. Perisphinctes de l'Argovien de Chézery et de la Faucille. Genève, 1916, 70pp. Soc. paléont. suisse., Mem. 42. (Bibl. 67-68. 29 entries. 1813-1905. Regional.)
- 225 SALFELD, HANS. Monographie der Gattung *Cardioceras* Neumayr et Uhlig. Teil. I. Die Cardioderaten des oberen Oxford und Kimmeridge. Deutsch. geol. Gesell., Zeit. 67, 1915: 203-204. (95 entries. 1837-1913. General.)
- 226 SARASIN, CH., and SCHÉNDELMAYER, CH. Étude monographique des ammonites du crétacique inférieur de Chatel-Saint-Denis. Genève, 1901, 91pp. Soc. paléont. suisse, Mém. 28. (Bibl. 8-10. 54 entries. 1812-1900. Regional.)
- 227 SCHNEID, THEODOR. Die Ammoniten fauna der obertriathonischen Kalke von Neuburg a. D. Geol. u. paläont. Abh., n. f. 13, hft. 5, 1915: 109-112. (138 entries. 1826-1914. General.)
- 228 SIEMIRADSKI, JOSEF V. Monographische Beschreibung der ammonitengattung Perisphinctes. Palaeontographica. 45, 1899: 345-348. (116 entries. 1841-97. General.)
- 229 SIMIONESCU, ION. Synopsis des ammonites néocomiennes [*Infra-valanginiens (Berriasien)*].—*Aptien (incl.)*] Grenoble, Univ., Ann. 11, 1899: 496-507. (175 entries. 1846-99. General.)
- 230 SMITH, W. D. The development of scaphites. Journ. Geol., 13, 1905: 654. (16 entries. 1862-1901. General.)
- 231 SOBOLEW, D. Über Clymenien und Goniatiten. Paläont. Zeit., 1, 1914: 374-375. (34 entries. 1832-1913. General.)
- 232 TOULA, FRANZ. Die Acanthicus-Schichten im Randgebirge der Wiener Bucht bei Giesshübl (Mödling WNW). Wien, 1907, 120pp. Austria. Geol. Reichsanst., Abh. 16, II. (Literatur, 94-120. 122 entries. 1813-1907. General.)
- 233 TSYTOVITCH, XENIE DE. Hecticoceras du Callovien de Chézery. Genève, 1911, 84pp. Soc. paléont. suisse, Mém. 37. (Index bibl., 5-6. 48 entries. 1826-1907. Regional.)
- 234 WELTER, O. A. Die obertriadischen Ammoniten und Nautiliden von Timor. Stuttgart, 1914, 258pp. Paläontologie von Timor; herausg. von Joh. Wanner. I. (Literatur,

- 249-254. 93 entries. 1862-1913. General.)
- 235 WEPFER, EMIL. Die Gattung *Opelia* im süddeutschen Jura. *Palaeontographica*, 59, 1913: 64-67. (70 entries. 1842-1910. Regional.)
- 236 WUNSTORF, WILHELM. Die Fauna der Schichten mit *Harpoceras dispansum* Lyc. vom Gallberg bei Salzgitter. Prussia. Geol. Landesanst., *Jahrb.* 25, 1907: 522-525. (75 entries. 1820-1901. Regional.)
- AMPHIBIA.** See **BATRACHIANS.**
- AMPHIBOLITE.** See 995.
- ANALCITE.**
- 237 KLEIN, C. Mineralogische Mittheilungen XV. N. J. f. Min., B. B. 11, 1897-98; 491-493. (49 entries. 1855-97. General.)
- 238 SCOTT, ALEXANDER. On primary analcite and analcitzation. *Geol. Soc. Glasgow.*, *Trans.* 16, 1915-16; 42-45. *Glasgow Univ. Geol. Dept.*, *Papers* 3, no. 11, 1916: 42-45. (43 entries. 1876-1916. General.)
- ANATOLIA.** See 304, 324a, 398.
- ANDALUSITE.** See 681.
- ANDESITE.** See 2145.
- ANDES.** See 475.
See also under Countries.
- ANGIOSPERMS.**
- 239 STOPES, M. C. Petrifications of the earliest European Angiosperms. *Roy. Soc. Lond.*, *Phil. Trans.* B. 203, 1912: 96-98. (44 entries. 1852-1911. Citations.)
- ANGOLA.**
- 240 GREGORY, J. W. Contribution to the geology of Benguela. *Roy. Soc. Edinb.*, *Trans.* 51, 1917: 532-534. (57 entries. 1855-1914. Regional.)
- ANHALT.**
- 241 LINSTOW, O. v. Die geologische Literatur des Herzogtums Anhalt mit Ausnahme des Harzanteils. Berlin, 1909, [33]pp. *Geologische Literatur Deutschlands.* B. (300 entries. 1710-1909. Regional.)
- 242 ZEIRVOGEL, H. Die Lagerungsverhältnisse des Tertiärs südwestlich von Cöthen im Herzogtum Anhalt. Prussia. Geol. Landesanst., *Jahrb.* 31, I, 1913: 104. (17 entries. 1856-1908. Regional.)
- ANNELIDA.**
- 243 ROVERETO, G. Serpulidae del terziario e del quaternario in Italia. *Palaeont. ital.*, 4, 1898: 48-50. (113 entries. 1755-1895. General.)

ANORTHOSITE.

- 244 ADAMS, F. D. Report on the geology of a portion of the Laurentian area lying to the north of the Island of Montreal. Ottawa, 1896, pp. 1J-184J. *Canada. Geol. Surv.*, *Ann. Rept.*, (n. s.) 8-J. (Literature, 157J-160J. 67 entries. 1829-1895. Regional.)

ANTARCTIC REGIONS.

- 245* DENUCE, J. Bibliographie Antarctique. *Proc.-verb. Comm. Polaire Intern.* 1913. Rome, pp. 25-293.
- 245a HALLE, T. G. The Mesozoic flora of Graham Land. Stockholm, 1913, 123pp. *Schwed. Südpolar Exp.* 1901-03, *Wissens. Ergeb.* 3, *lief.* 14. (Bibl. 109-115. 176 entries. 1828-1912. General.)
- 246 HENNIG, ANDERS. Le congrément Pleistocène à pecten de l'île Cockburn. Stockholm, 1911, 72pp. *Schwed. Südpolar Exp.* 1901-03, *Wissens. Ergeb.* 3, *lief.* 10. (Bibl. 61-66. 121 entries. 1852-1910. General.)
- 247 NORDENSKJOLD, OTTO. Antarktis. Heidelberg, 1913, 29pp. *Handb. reg. Geol.*, 15. (Literatur, 27-28. 47 entries. 1897-1913. Regional.)
- 248 PIRIE, J. H. H. Glaciology of the south Orkneys: Scottish Antarctic expedition. *Roy. Soc. Edinb.*, *Trans.* 49, 1914: 862-863. (24 entries. 1895-1911. Regional.)
See 258, 409, 485, 666, 861, 1154.

ANTICOSTI ISLAND.

- 249 SCHMITT, JOSEPH. Monographie de l'île d'Anticosti. Paris, 1904, 370pp. (Bibl. 349-367. 551 entries. 1691-1904. Regional.)

ANTIMONY.

- 250 BASTIN, E. S. Antimony. U. S. *Geol. Surv.*, *Min. Res.* 1916-I, 1919: 729. (11 entries. 1908-18. General.)
- 251 JOSEPH, P. E. Antimony. Tucson, Ariz., 1915-16, 8pp. *Ariz. Univ. Bull.* 22, *Min. tech. ser.* 12. (7 entries. 1906-14. General.)
- 252 WANG, CHUNG YU. Antimony: its history, chemistry, mineralogy, geology, metallurgy, uses, preparations, analysis, production, and valuation; with complete bibliographies. 2d ed. London, 1919, 217pp. (674 entries. 1817-1908. General.)
See 1740a.

APATITE. See 2688.

APLITE. See 2145.

ARABIA. See 2098, 2135, 2642.

ARAGONITE.

*Not seen.

- 253 ZIMÁNYI, K. Ueber den rosenrothen Aragonit von Dognácska im Comitate Krassó-Szörény. *Zeit. f. Kryst.*, 31, 1899: 371. (33 entries. 1801-98. General.)
- ARCHAEOCYATHINAE.**
- 254 TAYLOR, T. G. The Archaeocyathinae from the Cambrian of South Australia with an account of the morphology and affinities of the whole class. *Roy. Soc. S. Aust., Mem.* 2, 1910: 184-185. (50 entries. 1861-1907. General.)
- ARCHEAN.**
- 255 SEDERHOLM, J. J. Les roches pré-quaternaires de la Fennoscandia. *Helsingfors*, 1910, 39pp. *Finland. Comm. géol., Bull.* 24. (Bibl. 39. 12 entries. 1897-1910. Regional.)
- 256 SEDERHOLM, J. J. Les roches pré-quaternaires de la Finlande (2^{me} édition revue). *Helsingfors*, 1911, 27pp. *Finland. Comm. géol., Bull.* 28. (Bibl. 26-27. 9 entries. 1891-1907. Regional.)
See 2552, 2553, 2554.
See also PRE-CAMBRIAN.
- ARCTIC REGIONS.**
- 257 ANDERSSON, J. G. Nyare litteratur om Beeren Eilands geologi. *Geol. Fören. Stockh. Förh.*, 23, 1901: 219. (8 entries. 1899-1900. Regional.)
- 258 HULTH, J. M. Swedish Arctic and Antarctic explorations 1758-1910. *Bibliography.* Uppsala, [1910], 189pp. *Sven. Vetenskap. Handl. Årsbok* 1910: 2. (868 entries. 1758-1910. Regional.)
See 503, 1005, 2077.
- ARGENTINE REPUBLIC.**
- 259 ARGENTINE REPUBLIC. Dirección general de minas, geología e hidrología. *Padrón minero de la república año 1910.* Buenos Aires, 1913, 499pp. *Argentine Republic. Min. agri., An.*, 9, no. 3. (Bibl. through text. 63 entries. 1863-1910. Regional.)
- 260 BEDER, ROBERTO. Las vetas con magnetita (martita) y las de wolframita de la pendiente occidental del Cerro del Morro (provincia de San Luis). Buenos Aires, 1913. 15pp. *Argentine Republic. Dir. gen. min., Bol.* 3 B. (Bibl. 15. 12 entries. 1885-1911. Regional.)
- 261 BODENBENDER, GUILLERMO. Constitución geológica de la parte meridional de la Rioja y regiones limítrofes República Argentina. *Acad. nac. Córdoba, Bol.* 19, 1911: 219-220. (11 entries. n.d. Regional.)
- 262 BODENBENDER, GUILLERMO. Parte meridional de la provincia de La Rioja y regiones limítrofes. *Constitución geológica y productos minerales.* Buenos Aires, 1912, 165pp. *Argentine Republic. Min. agri., An.* 6, no. 3. (Bibl. 165. 13 entries. n. d. Regional.)
- 263 BONARELLI, GUIDO. La estructura geológica y los yacimientos petrolíferos del distrito minero de Orán provincia de Salta. Buenos Aires, 1914, 43pp. *Argentine Republic. Dir. gen. min., Bol.* 9 B. (Bibl. 7-8. 16 entries. 1860-1913. Regional.)
- 264 BONARELLI, GUIDO. Las Sierras Subandinas del Alto y Aguaraque y los yacimientos petrolíferos del Distrito Minero de Tartagal, Departamento de Orán, Provincia de Salta. Buenos Aires, 1913 50pp. *Argentine Republic. Min. agri., An.* 8, no. 4. (Bibl. 6-7. 18 entries. 1876-1909. Regional.)
- 265 BORCHERT, A. Die Molluskenfauna und das Alter der Paraná-Stufe. (*Beiträge zur Geologie und Palaeontologie von Südamerika.* . . . IX). *N. J. f. Min., B. B.* 14, 1901: 243-244. (42 entries. 1836-99. Regional.)
- 266 BURCKHARDT, CARL. Beiträge zur Kenntniss der Jura- und Kreideformation der Cordillere. *Palaeontographica*, 50, 1903: 138-144. (133 entries. 1789-1900. Regional.)
- 266a BURCKHARDT, C. E. Coupe géologique de la Cordillère entre Las Lajas et Curacautin. *La Plata, 1900*, 102pp. *La Plata Mus., An. Sec. geol. y min.* 3. (Works, 97-100. 102 entries. 1789-1900. Regional.)
- 266b BURCKHARDT, C. E. Profils géologiques transversaux de la Cordillère argentino-chilienne; stratigraphie et tectonique. *La Plata, 1900*, 136 pp. *La Plata Mus., An. Sec. geol. y min.* 2. (Works, 131-134. 111 entries. 1812-99. Regional.)
- 267 CORTI, HÉRCULES, SAGASTUME, C. A., AND GIOVANETTI, MANUEL. La potabilidad de las aguas Argentinas en sus relaciones con la salinidad. Buenos Aires, 1918, 26pp. *Argentine Republic. Dir. gen. min., Bol.* 8 D. (Bibl. 25-26. 31 entries. 1880-1916. Regional.)
- 268 FRENGUELLI, JOAQUÍN. Contribución de conocimiento de la geología de entre Ríos. *Acad. nac.*

- Córdoba, Bol. 24, 1920: 253-256. (39 entries. 1876-1919. Regional.)
- 269 GERTH, ENRIQUE. Constitución geológica, hidrogeología y minerales de aplicación de la provincia de San Luis. Buenos Aires, 1914, 64pp. Argentine Republic. Min. agri., An. 10, no. 2. (Bibl. 62-64. 52 entries. 1860-1911. Regional.)
- 270 HAUSEN, JUAN. Contribución al estudio de la petrografía del territorio nacional de Misiones. Buenos Aires, 1919, 39pp. Argentine Republic. Dir. Gen. min., Bol. 21 B. (Bibl. 38-39. 18 entries. 1827-1914. Regional.)
- 271 HERMITTE, E. M. Area de distribución de los yacimientos petrolíferos y estado actual de su explotación en la Argentina. 2d Pan-Am. Sci. Cong., Wash. D. C., Proc. sect. VII, 1917: 128-129. (18 entries. 1908-15. Regional.)
- 272 HERMITTE, E. La geología y minería Argentinas en 1914. Tercer censo nacional de la República Argentina. Buenos Aires, 1915, 111pp. (Bibl. minera, 98-110. 354 entries. 1873-1913. Regional.)
- 272a IHERING, HERMANN VON. Les mollusques fossiles du tertiaire et du crétacé supérieur de l'Argentine. Mus. nac. Buenos Aires, An. ser. 3, 7, 1907: 563-569. (107 entries. 1842-1906. Regional.)
- 273 KEIDEL, J. La geología de las sierras de la provincia de Buenos Aires y sus relaciones con las montañas de sud África y los Andes. Buenos Aires, 1916, 78pp. Argentine Republic. Min. agri., An. 11, no. 3. (Bibl. 65-71. 100 entries. 1863-1913. Regional.)
- 274 LEHMANN-NITSCHKE, ROBERT. Nouvelles recherches sur la formation Pampéenne et l'homme fossile de la république Argentine. La Plata Mus., Rev. 14, 1907: 204-210. (61 entries. 1864-1906. Regional.)
- 275 PASTORE, FRANCO. Estudio geológico y petrográfico de la Sierra del Morro provincia de San Luis. Buenos Aires, 1915, [45]pp. Argentine Republic. Min. agri., An. 11, no. 2. (Bibl. 25, [45]. 21 entries. 1891-1914. Regional.)
- 276 PENCK, WALTHER. Der Anteil deutscher Wissenschaft an der geologischen Erforschung Argentinien. Gesell. Erd. Berlin, Zeit. 1915: 1-28. (121 entries. 1825-1914. Regional.)
- 277 PENCK, WALTHER. Der südrand der Puna de Atacama (NW-Argentinien). Leipzig, 1920, 420 pp. Sachs. Akad. Wissen. Leipzig, Abh. 37, no. 1. (Literatur, 414-420. 148 entries. 1861-1917. Regional.)
- 278 RIMANN, EBERHARD. Estudio geológico de la Sierra Chica entre Ongamira y Dolores. Acad. nac. Córdoba, Bol. 23, 1918: 199-202. (67 entries. 1875-1916. Regional.)
- 279 ROVERETO, G. Studi di geomorfologia Argentina, III. Soc. geol. ital., Boll. 32, 1913: 141-142. (29 entries. 1882-1910. Regional.)
- 279a SPARN, ENRIQUE. Bibliografía de la geología, mineralogía y paleontología de la Republica Argentina, 1900-1914. Acad. nac. Córdoba, Misc. 2. (519 entries. 1900-14. Regional.)
- 280 STAPPENBECK, RICHARD. Le precordillera de San Juan y Mendoza. Buenos Aires, 1920, 187pp. Argentine Republic. Min. agri., An. 4, no. 3. (Bibl. 181-183. 31 entries. 1846-1908. Regional.)
- 280a STAPPENBECK, RICHARD. Los yacimientos de minerales y rocas de aplicación en la Republica Argentina. Buenos Aires, 1918, 107pp. Argentine Rep. Dir. gen. min., Bul. 19 B. (Bibl., 9-14. 88 entries. 1873-1914. Regional.)
- 281 STAPPENBECK, RICHARD. Übersicht über die nutzbaren Lagerstätten Argentinien und des Magelhaensländer. Zeit. f. prak. Geol., 18, 1910: 80-81. (30 entries. 1875-1907. Regional.)
- 282 STAPPENBECK, RICHARD. Umriss des geologischen Aufbaues der Vorkordillere zwischen den Flüssen Mensoza und Jachal. Geol. u. paläont. Abh., n. f. 9, 1911: 414. (30 entries. 1846-1908. Regional.)
- 283 STEUER A. Argentinische Jura-Ab lagerungen. Ein Beitrage zur Kenntniss der Geologie und Paläontologie der argentinischen Anden. Paläont. Abh., n. f. 3, hft. 3, 1897: 5-7. (79 entries. 1708-1895. Regional.)
- 284 WINDHAUSEN, ANSELMO. Contribución al conocimiento geológico de los territorios del Río Negro y Neuquén con un estudio de la región petrolífera de la parte central del Neuquén (Cerro Lotena y Covunco). Buenos Aires, 1914, 60pp. Argentine Republic. Min. agri., An. 10, no. 1. (Bibl. 58-

60. 33 entries. 1882-1912. Regional.)
- 285 WINDHAUSEN, ANSELMO. Los yacimientos petrolíferos de la zona Andina (provincia de Mendoza y territorio del Neuquen). Buenos Aires, 1916, 27pp. Argentine Republic. Dir. gen. min., Bol. 15B. (Bibl. 25-27. 39 entries. 1888-1916. Regional.)
See 661, 711, 727, 727a, 853, 1311, 1780, 2476, 2899.
- ARIZONA.**
- 286 BANCROFT, HOWLAND. Reconnaissance of the ore deposits in northern Yuma county, Arizona. Washington, 1911, 130pp. U. S. Geol. Surv., Bull. 451. (Bibl. 11-12. 25 entries. 1865-1910. Regional.)
- 287 BLANCHARD, R. C. The geology of the western Buckskin Mountains Yuma County, Arizona. Thesis. Columbia University, 1913, 80pp. (Select. bibl. 59-68. 126 entries. 1857-1913. Regional.)
- 288 BONILLAS, Y. S., and others. Geology of the Warren mining district. Am. Inst. M. E., Trans. 55, 1917: 351. (6 entries. 1900-13. Regional.)
- 289 CULIN, F. L., jr. Lime rocks. Tucson, Arizona, 1916-17, 8pp. Ariz. Univ. Bull. 46. Econ. ser. 13. (5 entries. 1899-1913. Regional.)
- 290 GREGORY, H. E. The Navajo country. A geographic and hydrographic reconnaissance of parts of Arizona, New Mexico, and Utah. Washington, 1916, 219pp. U. S. Geol. Surv., Water-supply Paper 330. (Bibl. 199-208. 116 entries. 1844-1913. Regional.)
- 291 JENKINS, O. P., and WILSON, E. D. List of United States geological survey publications relating to Arizona. Tucson, Arizona, 1919-20, 40pp. Ariz. Univ. Bull. 104. Geol. ser. 1. (205 entries. 1880-1920. Regional.)
- 292 LINDGREN, WALDEMAR. The copper deposits of the Clifton-Morenci district, Arizona. Washington, 1905, 375pp. U. S. Geol. Surv., Prof. Paper 43. (Literature, 30-31. 12 entries. 1870-1901. Regional.)
- 293 LUTRELL, ESTELLE, comp. Bibliography of Arizona mining metallurgy and geology. Tucson, Arizona, 1915-16, 49pp. Ariz. Univ. Bull. 23. Econ. ser. 7. (909 entries. 1848-1915. Regional.)
- 294 NOBLE, L. F. The Shinumo quadrangle Grand Canyon district Arizona. Washington, 1914, 100pp. U. S. Geol. Surv., Bull. 549. (Bibl. 13-15. 29 entries. 1861-1911. Regional.)
- 295 RANSOME, F. L. The copper deposits of Ray and Miami, Arizona. Washington, 1919, 192pp. U. S. Geol. Surv., Prof. Paper 115. (Bibl. 22-25. 70 entries. 1857-1917. Regional.)
- 296 RANSOME, F. L. The geology and ore deposits of the Bisbee quadrangle, Arizona. Washington, 1904, 168pp. U. S. Geol. Surv., Prof. Paper 21. (Publ. 12. 7 entries. 1878-1902. Regional.)
- 297 RANSOME, F. L. Geology of the Globe copper district, Arizona. Washington, 1903, 168pp. U. S. Geol. Surv., Prof. Paper 12. (Literature, 11-13. 24 entries. 1857-1901. Regional.)
- 298 SCHRADER, F. C. Mineral deposits of the Santa Rita and Patagonia mountains, Arizona. Washington, 1915, 373pp. U. S. Geol. Surv., Bull. 582. (Bibl. 31-34. 98 entries. 1828-1912. Regional.)
- 299 STEWART, C. A. The geology and ore-deposits of the Silverbell mining-district, Arizona. Am. Inst. M. E., Trans. 43, 1913: 288-290. (57 entries. 1891-1911. Regional.)
See 316, 401, 554a, 655, 745, 1236, 1863, 2727, 2772, 2784, 2920.
- ARKANSAS.**
- 300 BRANNER, J. C. Bibliography of the geology of Arkansas. In Purdue, A. H. States of Arkansas. [Fayetteville], 1909: 99-164. (461 entries. 1817-1909. Regional.)
- 301 MISER, H. D. Manganese deposits of the Caddo Gap and De Queen quadrangles, Arkansas. U. S. Geol. Surv., Bull. 660, 1918: 60-61. (12 entries. 1860-1916. Regional.)
- 302 STEPHENSON, L. W., and CRIDER, A. F. Geology and ground waters of northeastern Arkansas. . . . Washington, 1916, 315pp. U. S. Geol. Surv., Water-supply Paper 399. (Bibl. 15-22. 55 entries. 1809-1915. Regional.)
- 303 VAN INGEN, GILBERT. The Siluric fauna near Batesville, Arkansas. Part I. Geological relations. Sch. Min. Quart., 22, 1901: 328-329. (8 entries. 1889-1901. Regional.)
See 655, 859, 1580, 2155a, 2920.
- ARMENIA.**
- 304 KARAJIAN, H. A. Mineral resources of Armenia and Anatolia. 1st ed.

- N. Y., 1920, 211pp. (Bibl. 15-25. 177 entries. 1826-1916. Regional.)
- 305 KARAJIAN, H. A. Regional geology and mining of Armenia. N. Y. 1915, 72pp. (Bibl. 70-72. 36 entries. 1826-1913. Regional.)
- 306 OSWALD, FELIX. Armenien. Heidelberg, 1912, 40pp. Handb. reg. Geol. 10. (Literatur, 36-39. 109 entries. 1838-1910. Regional.)
- ARSENIC.**
- 307 WELLS, J. W. Arsenic in Ontario. Ontario Bur. Min., Rept. 1902: 121-122. (36 entries. n. d. Regional.)
See 1738, 1740a.
- ARTESIAN WELLS.**
- 308 NORTON, W. H. Artesian wells of Iowa. Iowa Geol. Surv. VI, 1897: 426-428. (26 entries. 1870-1896. Regional.)
- 309 RUSSELL, I. C. Preliminary report on artesian basins in southwestern Idaho and southeastern Oregon. Washington, 1903, 53pp. U. S. Geol. Surv., Water-supply Paper 78. (Literature, 50-51. 26 entries. n. d. Regional.)
See also UNDERGROUND WATERS.
- ARTHROPODA.**
- 310 TROTTER, A. Studi Cecidologici. Riv. ital. paleont., 9, 1903: 20-21. (25 entries. 1822-1902. General.)
See 1201b.
- ASBESTOS.**
- 311 CIRKEL, FRITZ. Asbestos its occurrence, exploitation and uses. Ottawa, 1905, 169pp. Canada. Dept. Int. Mines Br. (Bibl. 157-159. 51 entries. 1863-1903. General.)
- 312 CIRKEL, FRITZ. Chrysotile-asbestos its occurrence, exploitation milling and uses. 2d ed. Ottawa, 1910, 316pp. Canada. Dept. Mines. Mines Br. 69. (Bibl. 290-291. 23 entries. 1891-1909. General.)
- 313 DILLER, J. S. The types, modes of occurrence, and important deposits of asbestos in the United States. U. S. Geol. Surv., Bull. 470, 1911: 523-524. (17 entries. 1897-1911. Regional.)
- 314 HALL, A. L. Asbestos in the Union of South Africa. Pretoria, 1918, 152pp. Union of S. Afr. Geol. Surv., Mem. 12. (Bibl. [141]-142. 46 entries. 1872-1918. General.)
- 315 HOPKINS, O. B. A report on the asbestos, talc and soapstone deposits of Georgia. Atlanta, Ga., 1914, 319pp. Georgia Geol. Surv., Bull. 29. (Bibl. 302-303. 44 entries, 1861-1911. General.)
- 316 JOSEPH, P. E. Asbestos. Tucson, Arizona, 1915-16, 8 pp. Ariz. Univ., Bull. 8, Min. tech. ser. 4. (8 entries. 1905-13. General.)
- ASIA.**
- 317 KOBER, LEOPOLD. Geologische Forschungen in Vorderasien I Teil. Akad. Wissensch. Wien. Math.-Naturw. Klasse. Denk. 91, 1915: 425-427. (68 entries. 1861-1913. Regional.)
- 318 LEUCHS, KURT. Die Bedeutung der Überschiebungen in Zentralasien. Geol. Rundsch., 5, 1915: 81. (16 entries. 1874-1912. Regional.)
- 319 LEUCHS, KURT. Zentralasien. Heidelberg, 1916, 138pp. Handb. reg. Geol., 19. (Literature, 135-138. 92 entries. 1881-1914. Regional.)
- 320 WALCOTT, C. D. Cambrian geology and paleontology. III. No. 1-The Cambrian fauna of eastern Asia. Washington, 1914, pp. 1-75. Smith. Misc. Coll., 64, no. 1. Pub. 2263. (Bibl. 73-75. 44 entries. 1883-1912. Regional.)
See 501, 502, 609, 610, 1641, 1740a, 2182, 2720.
See also AFGHANISTAN.
- ASIA MINOR.**
- 321 BUKOWSKI, GEJZA V. Neuere Fortschritte in der Kenntnis der Stratigraphie von Kleinasien. Int. Geol. Cong., C. R. IX Sess. Vienne 1903: 411-426. (290 entries. 1869-1903. Regional.)
- 322 ENDERLE, JULIUS. Über eine an-thracolithische Fauna von Balia Maaden in Kleinasien. Beit. Paläont. Oesterr.-Ung., 13, 1901: 107-109. (88 entries. 1817-99. General.)
- 323 FRECH, FR. Geologie Kleinasiens in Bereich der Bagdadbahn. . . . Deutsch. geol. Gesell., Zeit. 68, 1916: 308. (10 entries. 1910-16. Regional.)
- 324 OPPENHEIM, PAUL. I. Das Neogen in Kleinasien. 1 Teil. Deutsch. geol. Gesell., Zeit. 70, 1918: 1-210. (490 entries. 1840-1911. Regional.)
- 324a *PENCK, WALTHER. Die tektonischen Grundzüge Westkleasiens, Beiträge zur anatolischen Gebirgs-geschichte auf grund eigener Reisen. Stuttgart, 1918, 120pp. (Literatur, 118-120.)

*Not seen.

- 325 PHILIPPSON, A. Kleinasien. Heidelberg, 1918, 183pp. Handb. reg. Geol., 22. (Literature, 167-168. 350 entries. 1912-17. Regional.)

ASPHALT.

- 326 U. S. Geological survey. . . . Publications on asphalt. *Its* Min. Res. 1914-II, 1916: 362. (24 entries. 1885-1914. Regional.)
See 1306, 1386, 1544, 2005b, 2009a.

ASTEROIDEA.

- 327 LINSTOW, O. v. Zwei Asteriden aus märkischem Septarienton (Rupelton) nebst einer Übersicht über die bisher bekannt gewordenen tertiären Arten. Prussia. Geol. Landesanst., Jahrb. 30, II, 1912: 60-63. (58 entries. 1760-1905. General.)
- 327a SCHUCHERT, CHARLES. Revision of Paleozoic *Stelleroidea*, with special reference to North American *Asteroides*. Washington, 1915, 311pp. U. S. Nat. Mus., Bull. 88. (Bibl., 281-288. 125 entries. 1838-1914. General.)
- 328 SPENCER, W. K. The evolution of the Cretaceous *Asteroides*. Roy. Soc. Lond., Phil. Trans. B. 204, 1913: 161-163. (51 entries. 1826-1913. General.)

ASTEROZOA.

- 329 SPENCER, W. K. A monograph of the British Palaeozoic *Asterozoa*. London, 1914-16 [Parts 1 and 2 issued]. Palaeont. Soc. Pub. (Literature, 52-57. 92 entries. 1847-1915. General.)

ATLANTIC COASTAL PLAIN.

- 330 CLARK, W. B. The Eocene deposits of the Middle Atlantic slope in Delaware, Maryland, and Virginia. Washington, 1896, 167pp. U. S. Geol. Surv., Bull. 141. (Bibl. 15-23. 80 entries. 1822-96. Regional.)

See 859, 1140.

AUCELLAE.

- 331 *PAVLOV, A. P. Enchaînement des aucelles et aucellines du crétacé russe. Moscou, 1907, 93pp. Soc. nat. Moscou, Nouv. mém. 17 (22), livr. 1. (Bibl. 4-8.)
- 331a POMPECKJ, J. F. Ueber Aucellen und Aucellen-ähnliche Formen. N. J. f., Min., B. B. 14, 1901: 319-368. (78 entries. 1837-1900. General.)

AUGITE.

- 332 GALKIN, XENIA. Chemische Untersuchung einiger Hornblenden und Augite aus Basalten der Rhön.

N. J. f. Min., B. B. 29, 1910: 681-682. (21 entries. 1849-1907. General.)

AUGITITE. See 2145.

AUSTRALASIA.

- 333 BENSON, W. N. A review of recent researches on the Mesozoic floras of Australasia. N. Z. Journ. Sci., 1, 1919: 29. (9 entries. 1916-18. Regional.)
- 334 CHAPMAN, FREDERICK. Australasian fossils: a students' manual of palaeontology. Melbourne, 1914, 341pp. (Literature references at end of each chapter beginning with Chapter V.)
- 335 DACQUÉ, E. Der Jura im Umkreis des lemurischen Kontinentes. Geol. Rundsch., 1, 1910: 148-151. (54 entries. 1864-1907. Regional.)
- 336 KOMOROWICZ, MAURICE VON. Vulkanoseismische Studien im norden Australasiens. Zeit. f. Vulkan., 2, 1915-19: 99-102. (28 entries. 1826-1912. Regional.)

AUSTRALIA.

- 337 DUN, W. S. Bibliography of Australian Cretaceous geology and palaeontology. N. S. Wales. Geol. Surv., Mem. Pal. 11, 1902, App. II: 85-98. (247 entries. 1858-1902. Regional.)
- 338 ETHERIDGE, R., jr., and DUN, W. S. The Australian geological record for the year[s] 1895-97 with addenda for the years 1891-96. N. S. Wales. Geol. Surv., Rec. 5, 1897: 87-11, 183-203. 6, 1899: 118-150. (1124 entries. 1895-97. Regional.)
- 339 HOWCHIN, WALTER. Australian glaciations. Journ. Geol., 20, 1912: 223-227. (41 entries. 1885-1910. Select.)
- 340 PITTMAN, E. F. The great Australian artesian basin and the source of its water. Sydney, 1914, 57pp. N. S. Wales. Geol. Surv. (Bibl. 43-57. 304 entries. 1868-1911. Regional.)
See 554, 961, 1105, 1733.

AUSTRALITES. See OBSIDIANITES.

AUSTRIA.

- 341 AIGNER, ANDRE. Eiszeit-Studien in Murgebiete. Naturw. Ver. Steiermark, Mitth. 42, 1905: 81. (21 entries. 1855-1904. Regional.)
- 342 AIGNER, ANDRE. Geomorphologische Studien über die Alpen am Rande der Grazer Bucht. Austria. Geol. Reichsanst., Jahrb. 66, 1916: 329-331. (39 entries 1854-1915. Regional.)

*Not seen.

- 343 AIGNER, AUGUST. Die Mineral-schätze der Steiermark. Wien, 1907, 291pp. (Literature, 252-291. ca 950 entries. 1755-1905. Regional.)
- 344 AMPFERER, OTTO. Geologische Beschreibung des nördlichen Theiles des Karwendelgebirges. Austria. Geol. Reichsanst., Jahrb. 53, 1903: 247-250. (122 entries. 1843-1903. Regional.)
- 345 AMPFERER, OTTO and HAMMER, WILHELM. Geologische Beschreibung des südlichen Theiles des Karwendelgebirges. Austria. Geol. Reichsanst., Jahrb. 48, 1898: 293-295. (55 entries. 1844-94. Regional.)
- 346 BUKOWSKI, GEJZA. Nachträge zu den Erläuterungen des Blattes Mährisch-Neustadt und Schönberg der geologischen Spezialkarte. Austria. Geol. Reichsanst., Jahrb. 55, 1905: 663-666. (55 entries. 1852-1905. Regional.)
- 347 DOELTER, CORNELIO and LEITMEIER, HANS. Neue Untersuchungen im Monzongebiete. Akad. Wissensch. Wien., Math.-naturw. Klasse. Sitz (I) 127, 1918: 707-713. (87 entries. 1863-1911. Regional.)
- 348 FUGGER, EBERHARD. Die Gaisberggruppe. Austria. Geol. Reichsanst., Jahrb. 56, 1906: 213. (16 entries. 1853-1905. Regional.)
- 349 FUGGER, EBERHARD. Die Salsburger Ebene und der Untersberg. Austria. Geol. Reichsanst., Jahrb. 57, 1907: 455-457. (54 entries. 1828-1904. Regional.)
- 350 FUGGER, EBERHARD. Das Tennengebirge. Austria. Geol. Reichsanst., Jahrb. 64, 1914: 373. (12 entries. 1844-1910. Regional.)
- 351 GRABER, H. V. Die Aufbruchzone von Eruptiv- und Schiefergesteinen in Süd-Kärnten. Austria. Geol. Reichsanst., Jahrb. 47, 1897: 292-294. (35 entries. 1853-97. Regional.)
- 352 HAHN, F. F. Geologie der Kammerker-Sonntagshorngruppe. I. Teil. Austria. Geol. Reichsanst., Jahrb. 60, 1910: 312-317. (147 entries. 1830-1908. Regional.)
- 353 HAMMER, WILHELM. Das Gebiet der Bündnerschiefer im tirolischen Oberinntal. Austria. Geol. Reichsanst., Jahrb. 64, 1914: 444-446. (47 entries. 1859-1915. Regional.)
- 354 HARTMANN, EDUARD. Der Schuppenbau Tarntaler Berge am Westende der Hohen Tauern. (Tuxer Voralpen.) Austria. Geol. Reichsanst., Jahrb. 63, 1913: 212-213. (52 entries. 1834-1911. Regional.)
- 355 HASSINGER, HUGO. Die Fortschritte der geomorphologischen Forschung in Oesterreich in den Jahren 1897 bis 1907. Geogr. Jahresb., 7, 1909: 126-194. (469 entries. 1897-1907. Regional.)
- 356 HERITSCH, FRANZ. Beiträge zur Geologie der Grauwackenzone des Paläntales (Obersteiermark). Naturw. Ver. Steiermark, Mitth. 48 (1911) 1912: 4-16. (201 entries. 1775-1909. Regional.)
- 357 HERITSCH, FRANZ. Die Fauna des unterdevonische Korallenkalkes der Mittelsteiermark nebst Bemerkungen über das Devon der Ostalpen. (Beiträge zur geologischen Kenntnis der Steiermark. IX.) Naturw. Ver. Steiermark, Mitth. 54, 1918: 21-24. (51 entries. 1870-1914. Regional.)
- 358 HERITSCH, FRANZ. Das Gebirge östliche von den Radstädter Tauern und vom Katschberg. Geol. Rundsch., 3, 1912: 245-247. (64 entries. 1902-11. Regional.)
- 359 HERITSCH, FRANZ. Untersuchungen zur geologie des Paläozoikums von Graz. I-II. Akad. Wissensch. Wien. Denk. 92, 1916: 553-561; 94, 1918: 107-110. (326 entries. 1828-1915. Regional.)
- 359a *HERITSCH, F. Verzeichnis der geologischen Literatur der österreichischen Alpenländer. Loeben, 1914, 3p. 1., 69pp.
- 360 HILBER, V. Geologische und paläontologische Literatur der Steiermark. Naturw. Ver. Steiermark, Mitth. 33-47, 1896-1910. (1896-1910). Regional.)
 1896-v. 33: lxxiii-lxxvii
 1897-v. 34: lxxvii-lxxxii
 1898-v. 35: lxxix-lxxxii
 1899-v. 36: lxxviii-lxxxii
 1900-v. 37: xciv-xcix
 1901-v. 38: lxxxiii-lxxxvi
 1902-v. 39: liii-lvii
 1903-v. 40: lxxii-lxxvii
 1904-v. 41: xii-xvi
 1905-v. 42: cxxxv-cxxxviii
 1906-v. 43: 453-456
 1907-v. 44: 341-344
 1908-v. 45: 470-480
 1909-v. 46: 516-525
 1910-v. 47: 437-445

*Not seen.

- 361 HRADIL, GUIDO. Die Gneiszone des südlichen Schnalser Tales in Tirol. Austria. Geol. Reichsanst., Jahrb. 59, 1909: 669. (22 entries. 1849-1905. Regional.)
- 362 HUMPHREY, W. A. Über einige Erzlagerstätten in der Umgebung der Stangalpe. Austria. Geol. Reichsanst., Jahrb. 55, 1905: 349. (19 entries. 1783-1904. Regional.)
- 363 HUFFELD, [Fr.] . Der Bleiberger Erzberg. Zeit. f. prakt. Geol., 1897: 233-234. (45 entries. 1783-1896. Regional.)
- 364 IPPEN, J. A. Mineralogische Literatur der Steiermark 1896-97. Naturw. Ver. Steiermark, Mitth. 33, 1896: lxi-lxxiii; 35, 1898: lxxii-lxxv. (1896-97. Regional.)
- 365 KITTL, ERWIN. Die Gesteine der Bösensteinmasse. (Rottenmanner Tauern). Austria. Geol. Reichsanst., Jahrb. 69, 1919: 225-256. (49 entries. 1848-1917. Regional.)
- 366 KITTL, ERWIN. Salzkammergut. Int. Geol. Cong. IX. Wien, 1903. Führer iv: 108-118. (179 entries. 1846-1903. Regional.)
- 367 KLEBELSBERG, R. v. Die marine Fauna der Ostrauer Schichten. Austria. Geol. Reichsanst., Jahrb. 62, 1912: 546-555. (416 entries. 1809-1910. Regional.)
- 368 KRASSER, FRIDOLIN. Zur Kenntnis der fossilen Flora der Lunzer Schichten. Austria. Geol. Reichsanst., Jahrb. 59, 1909: 124-126. (65 entries. 1820-1909. Regional.)
- 369 KREBS, NORBERT. Die landeskundliche Literatur der österreichischen Karstländer in den Jahren 1905-08 (1909). Geogr. Jahresb., 8, 1910: 70-112. (380 entries. 1905-09. Regional.)
- 370 LEBLING, CLEMENS. Geologische Beschreibung des Lattengebirges im Berchtesgadener Land. Geogn. Jahresh., 24, 1911: 34-36, 48-50. (159 entries. 1843-1910. Regional.)
- 371 LOESCH, K. C. VON. Der Schollenbau im Wetterstein- und Miemingergebirge. Austria. Geol. Reichsanst., Jahrb. 64, 1914: 96-97. (30 entries. 1895-1913. Regional.)
- 372 PHILLIPP, HANS. Paläontologisch-geologische Untersuchungen aus dem Gebiet von Predazzo. Deutsch. geol. Gesell., Zeit. 56, 1904: 3-5. (67 entries. 1834-1903. Regional.)
- 373 PIA, JULIUS V. Geologische Studien im Höllengebirge und seinen nördlichen Vorlagen. Austria. Geol. Reichsanst., Jahrb. 62, 1912: 562-564. (35 entries. 1840-1911. Regional.)
- 374 PUFFER, LORENZ. Die landeskundliche Literatur der bojischen Länder Oesterreichs (Böhmen und die bojischen Anteile von Nieder- und Oberösterreich, Mähren und Schlesien in den Jahren 1897-1907. Geogr. Jahresb., 7, 1909: 195-220. (356 entries. 1897-1907. Regional.)
- 375 REDLICH, K. A. Das Alter der Kohlenablagerungen östlich und westlich von Röttschach in Südsteiermark. Austria. Geol. Reichsanst., Jahrb. 50, 1900: 409-410. (20 entries. 1849-99. Regional.)
- 376 REININGER, HEINRICH. Das Tertiärbecken von Budweis. Austria. Geol. Reichsanst., Jahrb., 58, 1908: 470-471. (25 entries. 1853-1904. Regional.)
- 377 RUDNYCKYJ, STEPHAN. Die landeskundliche Literatur von Galizien und der Bukowina in den Jahren 1905 bis 1909. Geogr. Jahresb., 10, 1911-12: 68-95. (463 entries. 1905-09. Regional.)
- 378 SANDER, BRUNO. Geologische Beschreibung des Brixner Granits. Austria. Geol. Reichsanst., Jahrb., 56, 1906: 743-744. (26 entries. 1871-1905. Regional.)
- 379 SCHAFFER, F. X. Geologie von Wien. Teil II. Wien, 1906, 242pp. (Literature, 7-29. 485 entries. 1739-1905. Regional.)
- 380 SCHWINNER, ROBERT. Das Gebirge westlich von Ballino (Südwest-Tirol). [Eine vorläufige Mitteilung.] I. Teil. Austria. Geol. Reichsanst., Verh. 1918: 174-178. (52 entries. 1866-1917. Regional.)
- 381 SIGMUND, ALOIS. Die minerale niederösterreichs. Wien, 1909, 194pp. (Literature, 3-7. 79 entries. 1843-1908. Regional.)
- 382 SPENGLER, E. Die Gebirgsgruppe des Plassen und Hallstätter Salzberges im Salzkammergut. Eine geologische Monographie. Austria (omitted after 1918). Geol. Reichsanst., Jahrb. 68, 1918: 288-296. (148 entries. 1802-1918. Regional.)

*Not seen.

- 383 TOULA, FRANZ. Geologische Exkursionen im Gebiete des Liesing- und des Mödlingbaches . . . Austria. Geol. Reichsanst., Jahrb. 55, 1905: 245-246. (93 entries. 1817-1905. Regional.)
- 384 TRAUTH, FRIEDRICH. Die Grestener a Schichten der österreichischen Voralpen und ihre Fauna. Beitr. Paläont. Oesterr.-Ung., 22, 1909: 2-4. (82 entries. 1830-1908. Regional. Paleontological literature, pp. 41-46. 207 entries, 1825-1909.)
- 385 TROLL, OSKAR ritter von. Die pontischen Ablagerungen von Leobersdorf und ihre Fauna. Austria. Geol. Reichsanst., Jahrb. 57, 1907: 86-90. (138 entries. 1837-1904. Regional.)
- 386 VACEK, M. Exkursion durch die Etschbucht. (Mendola, Trient, Rovereto, Riva.) Int., Geol. Cong. IX. Wien, 1903. Führer no. vii: 2-4. (44 entries. 1824-1902: Regional.)
- 386a *VETTERS, HERMANN. Die geologischen Verhältnisse der weiteren Umgebung Wiens und Erläuterungen zur geologisch-tektonischen Uebersichtskarte des Wiener Beckens und seiner Randgebirge. Wien, 1910, 106pp. (Bibliographical notes.)
- 387 WINKLER, ARTUR. Das Eruptivgebiet von Gleichenberg in Oststeiermark. Austria. Geol. Reichsanst., Jahrb. 63, 1913: 407-410. (86 entries. 1819-1912. Regional.)
- 388 WITTENBURG, PAUL v. Beiträge zur Kenntnis der Werfener Schichten Südtirols. Geol. u. paläont. Abh., n. f. 8, hft. 5, 1908: 39-41. (109 entries. 1853-1908. Regional.)
- See 145, 148, 157, 158, 163, 169, 173, 174, 194, 410, 668, 871, 958, 1119, 1152, 1234, 1517, 1589, 1590, 1641, 1740a, 1771, 1784, 1832, 2122.

AUSTRIA HUNGARY.

See Czecho Slovakia, Hungary, Italy, Jugo-Slavia, Poland, Rumania.

AUTUNITE. See 413.

AZORES. See 2844.

BACTERIA.

- 389 HARDER, E. C. Iron-depositing bacteria and their geologic relations. Washington, 1919, 89pp. U. S. Geol. Surv., Prof. Paper 113. (Bibl. 84-85. 69 entries. 1836-1916. General.)

*Not seen

BADEN.

- 390 ECK, HEINRICH. Verzeichnis der mineralogischen, geognostischen, ur- (vor)-geschichtlichen und balneographischen Literatur von Baden, Württemberg, Hohenzollern und einigen angrenzenden Gegenden. Heidelberg, 1898-1909. Baden. Geol. Landesanst., Mitth. 1, Suppl. 2, 3, 4. (ca 3300 entries. 1524-1901. Regional.)
- 391 GÖHRINGER, AUGUST. Talgeschichte der oberen Donau und des oberen Neckars, oder Geröllablagerungen im Gebiete der oberen Donau und des oberen Neckars. Baden. Geol. Landesanst., Mitth. 6, 1912: 463-465. (29 entries. 1482-1908. Regional.)
- 392 HOHENSTEIN, VICTOR. Beiträge zur Kenntnis des Mittleren Muschelkalks und des unteren Trochitenkalks an östlichen Schwarzwaldrand. Geol. u. paläont. Abh., n. f. 12, hft. 2, 1913: 96-98. (150 entries. 1820-1910. Regional.)
- 393 HUG, OTTO. Beiträge zur Stratigraphie und Tektonik des Isteiner Klotzes. Baden. Geol. Landesanst., Mitth. 3, 1899: 386-390. (81 entries. 1821-95. Regional.)
- 394 SCHWENKEL, HANS. Die eruptivgneise des Schwarzwaldes und ihr verhältnis zum granit. T. M. P. M., n. f. 31, 1912: 313-316. (76 entries. 1892-1910. Regional.)
- 395 WILSER, J. L. Die Rheintalflexur nordöstlich von Basel zwischen Lörrach und Kandern und ihr Hinterland. Baden. Geol. Landesanst., Mitth. 7, 1914: 640. (7 entries. 1893-1913. Regional.)
- See 64, 215, 634, 2214, 2522, 2592a, 2713, 2719, 2812.

BAKONY. See 1387, 1393.

BALEARIC ISLANDS.

- 396 FALLOT, PAUL. Le faune des marnes Aptiennes et Albienues de la région d'Andraitx (Majorque). Madrid, 1920, 68pp. Mus. cienc. nat., Madrid, Trab. ser. geol. 26. (List, 65-68. 64 entries. 1861-1919. Regional.)

See 1595.

BALKAN PENINSULA.

- 396a PETKOVIĆ, V. K. Bibliographie géologique de la péninsule balkanique. 1904-1909. Annales géologiques de la péninsule balkanique, 6, fasc 2, 1911: I-LIX. (145 entries. 1904-09. Regional.)
- 397 SCHUBERT, RICHARD. Balkanhalbinsel. A. Die Küstenländer Ös-

- terreich-Ungarns. Heidelberg, 1914, 51pp. Handb. reg. Geol., 16. (Literature, 45-49. 188 entries. 1856-1914. Regional.)
- 398 TOULA, FRANZ. Übersicht über die geologische Literatur der Balkanhalbinsel mit Morea, des Archipels mit Kreta und Cypern, der Halbinsel Anatolien, Syriens und Palästinas. Int. Geol. Cong. IX. Vienne, 1903, C. R.: 185-330. (1314 entries. 1703-1903. Regional.)
See also ALBANIA.
- BALTIC.** See 1429, 1430, 2042.
- BANATITE.**
- 399 BERGEAT, EMIL. Beobachtungen über den Diorit (Banatit) von Vaskö in Banat und seine endogene und exogene Kontaktmetamorphose. N. J. f. Min., B. B. 30, 1910: 571-573. (32 entries. 1774-1906. Regional.)
- 400 ROZLOZNIK, PAUL, and EMSZT, KOLOMAN. Beiträge zur genaueren petrographischen und chemischen Kenntnis der Banatite des Komitates Krassó-Szörény. Hungary. Geol. Anst., Mitth. 16, hft. 4, 1908: 145-149. (58 entries. 1798-1907. Regional.)
- BARITE.**
- 401 ALLEN, M. A., and BUTLER, G. M. Barytes. Tucson, Arizona, 1919. 20, 18pp. Ariz. Univ. Bull. 99. Min. tech. ser. 22. (Bibl. 17-18. 22 entries. 1904-12. Select.)
- 402 AMINOFF, G. Kristallographische Studien an Calcit und Baryt von Långbanshyttan. Geol. Fören. Stockh. Förh. 40, 1918: 445-446. (36 entries. 1852-1917. General.)
- 403 ANDRÉE, K. Über Vorkommen und Herkunft des Schwerspaties am heutigen Meeresboden. Centralb. f. Min. 1918: 164-165. (23 entries. 1859-1916. General.)
- 404 HILL, J. M. Barytes. U. S. Geol. Surv., Min. Res. 1914-II, 1916: 65. (33 entries. 1912-14. General.)
- 405 PHALEN, W. C. Barytes. U. S. Geol. Surv., Min. Res. 1911-II. 1912: 969-970. (19 entries. 1904-11. General.)
- 406 TARR, W. A. The barite deposits of Missouri and the geology of the barite district. Columbia, Mo. [1918], 111pp. Mo. Univ. Studies. 3; no. 1. (Bibl. 106-111. 88 entries. 1854-1914. General.)
- 407 VOGT, THOROLF. Schwerspat aus norwegischen Vorkommen. Norsk geol. Tidssk. 1, no. 9, 1908: 55-56. (37 entries. 1831-1907. General.)
- 408 WATSON, T. L., and GRASTY, J. S. Barite of the Appalachian states. Am. Inst., M. E., Trans. 51, 1916: 557-559. (37 entries. 1896-1914. General.)
See 562, 1740a.
- BASALT.**
- 409 BAECKSTRÖM, OLOF. Petrographische Beschreibung einiger Basalte von Patagonien, Westantarktika und den Süd-Sandwich-Inseln. Upsala Univ., Bull. Geol. Inst. 13, 1915: 115-182. (108 entries. 1832-1912. Footnotes.)
- 410 PREISS, CORNELIUS. Die Basalte vom Plattensee verglichen mit denen Steiermarks. Naturw. Ver. Steiermark., Mitth. 45 (1908) 1909: 9-12. (105 entries. 1822-1907. Regional.)
- 411 SCHOTTLER, WILHELM. Die Basalte der umgegend von Giessen. Darmstadt, 1908, pp. 315-491. Hesse. Geol. Landesanst., Abh. 4, hft. 3. (Literature, 327-328. 1856-1905. Regional.)
- 412 VITÁLIS, ISTVÁN. Die Basalte der Balatongegend. Res. wissen. Erf. Balatonsees. 1, Teil 1 Min. u. Petr. Anh., II, 1911: 5-6. (22 1911: 5-6. (22 entries. 1803-1911. Regional.)
See 2145.
- BASANITE.** See 2145.
- BASSETITE.**
- 413 HALLIMOND, A. F. On Bassetite and Uranospathite, new species hitherto classed as Autunite. Min. Mag., 17, 1915: 235. (14 entries. 1816-1910. General.)
- BATRACHIANS.**
- 414 BROILI, FERDINAND. Permische Stegocephalen und Reptilien aus Texas. Palaeontographica, 51, 1904: 108-120. (283 entries. 1828-1903. General.)
- 415 MOODIE, R. L. The coal measures amphibia of North America. Washington, 1916, 222pp. Carnegie Inst., Wash., Publ. 238. (Bibl. 202-219. 645 entries. 1824-1916. General.)
- 416 MOODIE, R. L. The Pennsylvanian Amphibia of the Mazon Creek, Illinois, shales. Kansas Univ., Sci. Bull. 6, 1913: 358-359. (26 entries. 1865-1912. Regional.)
- 416a MOODIE, R. L. A list of the described species of fossil Amphibia. Kansas Univ., Sci. Bull. 9, 1914: 14-28. (346 entries. 1828-1914. General.)
- 417 SCHWARZ, HUGO. Über die Wirbelsäule und die Rippen holospondyler Stegocephalen (Lepospond-

- yli Zitt.) Beitr. Paläont. Oesterr-Ungar. 21, 1908: 103-105. (85 entries. 1857-1907. General.)
- 418 WIMAN, CARL. Über die Stegocephalen aus der Trias Spitzbergens. Upsala, Univ., Bull. Geol. Inst. 13, 1915-1916: 29. (20 entries. 1856-1914. Regional.)
See 1634.
- BAUXITE.**
- 419 BRANNER, J. C. Bibliography of bauxite. Journ. Geol., 5, 1897: 285-289. (93 entries. 1821-96. General.)
- 420 PHALEN, W. C. Bauxite and aluminum. U. S. Geol. Surv., Min. Res., 1914-I, 1916: 208-209. (46 entries. 1892-1911. Regional.)
- 421 WATSON, T. L. A preliminary report on the bauxite deposits of Georgia. Atlanta, Ga., 1904, 169pp. Georgia Geol. Surv., Bull. 11. (Bibl. 159-164. 82 entries. 1863-1901. General.)
- BAVARIA.**
- 422 DREHER, OTTO. Geologische Beschreibung des Dammersfeldes in der Rhön und seiner südwestlichen Umgebung. Prussia. Geol. Landesanst., Jahrb. 31-II, 1913: 297-298. (18 entries. 1851-1907. Regional.)
- 423 DÖRRFELD, V. Die Drusenminerale des Waldsteingranite im Fichtelgebirge. Zeit. f. Kryst., 46, 1909: 563-564. (18 entries. 1854-1908. Regional.)
- 424 FISCHER, HERMANN. Beitrag zur Kenntnis der unterfränkischen Triasgesteine. Geogn. Jahresh., 21, 1908: 54-55. (47 entries. 1854-1907. Regional.)
- 425 FRAAS, E. Geologische und paläontologische Beiträge aus dem Triasgebiet von Schwaben und Franken seit 1907. Geol. Rundsch., 2, 1911: 519-520. (23 entries. 1902-11. Regional.)
- 426 FRENTZEL, ALEXANDER. Das Passauer Granitmassiv. Geogn. Jahresh., 24, 1911: 191-192. (20 entries. 1847-1908. Regional.)
- 427 GILLITZER, GEORG. Geologie des Südbereiches des Peissenberger Kohlenreviers im Kgl. bayr. ärar. Reservatfeld. Austria. Geol. Reichsanst., Jahrb., 64, 1914: 151. (20 entries. 1900-13. Regional.)
- 428 GILLITZER, GEORG. Geologischer Aufbau des Reiteralpgebirges im Berchtesgadener Land. Geogn. Jahresh., 25, 1912: 165. (16 entries. 1830-1911. Regional.)
- 429 ISSLER, ALFRED. Beiträge zur Stratigraphie und Mikrofauna des Lias in Schwaben. Palaeontographica, 55, 1908: 98-103. (136 entries. 1788-1904. Regional.)
- 430 KNAUER, JOSEPH. Geologische Monographie des Herzogstand-Heimgarten-Gebietes. Geogn. Jahresh., 18, 1905: 110-111. (71 entries. 812-1901. Regional.)
- 431 KOEHNE, WERNER. Verzeichnis der geologischen Literatur über die fränkische Alb und der für deren Versteinerungskunde und Geologie wichtigsten Literatur aus anderen Gebieten. Naturh. Gesell. Nürnberg., Abh., 15, 1905: 379-407. (437 entries. 1833?-1905. Regional.)
- 432 KOEHNE, WERNER. Zur Stratigraphie und Tektonik des oberbayerischen Oligozän. Geol. Rundsch., 3, 1912: 407-408. (14 entries. 1897-1912. Regional.)
- 433 KOEHNE, WERNER. Zusammenstellung der geologischen Literatur über die Erlanger Gegend. Phys.-med. Soc. Erlangen. Sitz., 37 (1905) 1906: 456-461. (72 entries. 1774-1905. Regional.)
- 434 LOESCH, K. C. von. Vorläufige Mitteilung über Aufnahmeergebnisse zwischen Inn und Leitzach. Austria. Geol. Reichsanst., Verh. 1915:96. (15 entries. 1864-1914. Regional.)
- 435 MAYER, FRANZ. Geologisch-mineralogische Studien aus dem Berchtesgadener Land. Geogn. Jahresh., 25, 1912: 157-158. (56 entries. 1806-1912. Regional.)
- 436 MÜNICHSDORFER, FRANZ. Mineralogisch-petrographische Studien am Silberberg bei Bodenmais. Geogn. Jahresh., 21, 1908: 88-90. (106 entries. 1764-1907. Regional.)
- 437 PFAFF, F. W. Versuch einer Zusammenstellung der geologisch-mineralogischen Litteratur von Königreich Bayern. Geogn. Jahresh., 12, 1899: 1-71. (ca 1800. 1542-1899. Regional.)
- 438 REIS, O. M. Beobachtungen über Schichtenfolge und Gesteinsausbildungen in der fränkischen Unteren und Mittleren Trias. I. Muschelkalk und Untere Lettenkohle. Geogn. Jahresh., 21, 1909: 272-274. (84 entries. 1824-1910. Regional.)
- 439 SCHNEID, THEODOR. Die Geologie der fränkischen Alb zwischen Eichstätt und Neuburg a. D. Geogn. Jahresh., 27, 1914: 65-73.

- (277 entries. 1842-1913. Regional.)
- 440 STUHLIK, HEINRICH. Die Faziesentwicklung der südbayrischen Oligocänmolasse. Austria. Geol. Reichsanst., Jahrb. 56, 1906. 348-349. (35 entries. 1792-1904: Regional.)
- 441 WAGNER, GEORG. Beiträge zur Stratigraphie und Bildungsgeschichte des oberen Hauptmuschelkalks und der unteren Lettenkohle in Franken. Geol. u. paläont. Abh., 12, hft. 3, 1913: 177-178. (44 entries. 1852-1908. Regional.)
- 442 WALTHER, JOHANNES. Die fauna der Solnhofener Plattenkalke. Bionomisch betrachtet. Med.-naturw. Gesell. Jena. Denks., 11, 1904: 135-138. (84 entries. 1833-1902. Regional.)
- 443 ZELLER, FRIEDRICH. Beiträge zur Kenntnis der Lettenkohle und des Keupers in Schwaben. N. J. f. Min., B. B. 25, 1908: 120-125. (116 entries. 1830-1906. Regional.)
- See 177, 543, 553, 746, 831, 1683, 1684, 2007, 2320.

BEARS. See 1609, 1619.

BELGIAN CONGO.

- 444 BALL, S. H., and SHALER, M. K. Economic geology of the Belgian Congo, central Africa. Econ. Geol., 9, 1914: 605-663. (100 entries. 1873-1914. Footnotes.)
- 445 BEHREND, FRITZ. Zur Geologie und Oberflächengestaltung von Nordost-Katanga (Belgisch-Kongo). Berlin, 1914, [170]pp. Beitr. geol. Erfors. Deuts. Schutz., 9. (Literature, 4-7. 55 entries. 1887-1914. Regional.)
- 446 CORNET, J. Bibliographie géologique du Bassin du Congo. Soc. géol. Nord., Ann. 41, 1913-14: 1-81. (858 entries. 1877-1913. Regional.)
- 447 GUILLEMAIN, C. Zur Kenntnis der Lagerstätten in der Provinz Katanga der Belgischen Kongo-Kolonie. Zeit. f. prak. Geol., 21, 1913: 321. (33 entries. 1894-1912. Regional.)
- 448 PREUMONT, G. F. J. Notes on the geological aspect of some of the north-eastern territories of the Congo Free State. Geol. Soc. London. Q. J., 61, 1905: 664. (17 entries. 1884-1904. Regional.)
- See 102, 110.

*Not seen.

BELGIUM.

- 449 ASSELSBERGS, ÉTIENNE. Le Dévonien inférieur du Bassin de l'Eifel et de l'Anticlinal de Givonne dans la région Sud-Est de l'Ardenne belge. . . . Louvain, Univ. Inst. géol., Mém. 1, 1913: 165-171. (66 entries. 1836-1913. Regional.)
- 450 CAMBIER, RENÉ and RENIER, ARMAND. Psymphyllum Delvali. n. sp. du Terrain houiller de Charleroi. Soc. géol. Belg., Mém. 2, 1910: 26-28. (69 entries. 1845-1907. General.)
- 451 CORNET, J. Liste des principales publications concernant la géologie de la vallée de l'Hogneau. Soc. belge géol., Brux. Mém., 16, 1902: 174-177. (45 entries. 1854-1902. Regional.)
- 452 HALET, F. La géologie tertiaire de la Campine anversoise et limbourgeoise. Soc. belge géol., Brux., Bull. 30, 1920: 99-100. (17 entries. 1859-1914. Regional.)
- 453 JOLY, HENRY. Les fossiles du jurassique de la Belgique avec description stratigraphique de chaque étage. I partie: Infraalias. Bruxelles, 1907, 156pp. Mus. hist. nat. Belg., Mém. 5. (List of works, 8-10. 59 entries. 1828-1906. Regional.)
- 453a *LOHEST, M. J. M. Stratigraphie du massif cambrien de Stavelot. Liège, 1899-1900, 49pp. Extrait des Soc. géol. Belg., Ann. 25 bis. (Bibl., 3-32.)
- 454 LOHEST, MAX, and FRAIPONT, CHARLES. Le Limon Hesbayen de la Hesbaye. Soc. géol. Belg., Mém. 1911-12, fasc. 2: 51-52. (60 entries. 1862-1911. Regional.)
- 455 LORIÉ, J. Le Diluvium ancien de la Belgique et du Nord de la France. Soc. géol. Belg., Ann. 42, 1921: M403-M409. (116 entries. 1836-1916. Regional.)
- 456 LORIÉ, J. La stratigraphie des argiles de la Campine belge et du Limbourg néerlandais. Soc. belge géol., Brux., Mém. 21, 1907: 532-534. (44 entries. 1860-1906. Regional.)
- 457 RENIER, ARMAND. L'Échelle stratigraphique du terrain houiller de la Belgique. Soc. belge géol., Brux., Mém. 26, 1912: 151-157. (72 entries. 1768-1911. Regional.)
- 457a RENIER, ARMAND. Les gisements houillers de la Belgique. Annexe I. Liste bibliographique. Annales des Mines de Belgique, 21, 1920:

- 421-680. (ca 2850 entries. 1795-1919. Regional.)
- 458 RENIER, ARMAND. Note sur quelques végétaux fossiles du Dinantien moyen de Belgique. Soc. géol. Belg., Mém. 2, 1910: 91-92. (26 entries. 1874-1910. Regional.)
- 459 RENIER, ARMAND. Le poudingue de Malmedy—Essai géologique (551. 761. 1 et 554.312.2). Soc. géol. Belg., Ann. 29, 1901-02: M221-M223. (24 entries. 1832-1902. Regional.)
- 460 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire... à Laon, Reims, Mons, Bruxelles, Anvers. Liste des principales publications relatives aux régions visitées. Soc. géol. France, Bull. 4th sér. 12, 683-689. (123 entries. 1843-1912. Regional.)
- 460a STAINER, X. Sur le mode de gisement et l'origine des roches métamorphiques de la région de Bastogne (Belgique). Acad. Roy. Belg., Mém. (4^e) 1, 1907: 157-158. (31 entries. 1835-1901. Regional.)
See 80, 563, 829, 830, 857, 1116, 1210, 1444, 2203.
See also LUXEMBURG.
- BENGUELA.** See ANGOLA.
- BERMUDA.**
- 461 VERRILL, A. E. The Bermuda Islands. Part IV. Geology and palaeontology, and Part V. An account of the coral reefs. Connect. Acad., Trans. 12, 1907: 200-204. (70 entries. 1860-1900. Regional.)
- 462 VERRILL, A. E. Notes on the geology of the Bermudas. Am. Journ. Sci., 4th ser. 9, 1900: 339-340. (19 entries. 1837-97. Regional.)
See 835.
- BIRDS.**
- 463 GAILLARD, C. Les oiseaux des phosphorites du Quercy. Lyon, Univ., Ann. n. s. I, fasc. 23, 1908: 149-156. (119 entries. 1871-1906. Regional.)
- 464 MILLER, L. H. Contributions to avian paleontology from the Pacific coast of North America.. California, Univ. Dept. Geol., Bull. 7, 1912: 115. (11 entries. 1878-1911. Regional.)
See 1603, 1634.
- BISMARCK ARCHIPELAGO.** See NEW BRITAIN or NEU POMMERN.
- BISMUTH.** See 1738, 1740a.
- BITUMINOUS SANDS.**
- 465 ELLS, S. C. Preliminary report on the bituminous sands of northern Alberta. Ottawa, 1914, 92pp.
- Canada Dept. Mines. Mines Br. No. 281. (Bibl., 2. 22 entries. n.d. General.)
- BLACK HILLS.** See SOUTH DAKOTA.
- BLACK SANDS.** See 2057.
- BOGOSLOFF ISLAND.**
- 466 MERRIAM, C. H. Bogoslof, our newest volcano. Harriman Alaska expedition, 2, 1902: 335-336. (25 entries. 1780-1898. Regional.)
- BOHEMIA.**
- 467 BECK, RICHARD. Die Zinnerzlagernstätten von Graupen in Böhmen. Austria. Geol. Reichsanst., Jahrb. 64, 1914: 270. (10 entries. 1838-1909. Regional.)
- 468 BERG, G. Zur Geologie des Braunaauer Landes. Prussia. Geol. Landesanst., Jahrb. 29-I, 1909: 38. (18 entries. 1867-1907. Regional.)
- 469 CORNU, F. Der phonolith-lakkolith des Marienberg-Steinberges bei Aussig a. d. E. T. M. P. M., 30, 1911: 2-4. (43 entries. 1790-1908. Regional.)
- 470 FREUND, L. Naturwissenschaftliche Literatur über Böhmen. I-VIII. Lotos... Prag, 61, 1913: 16, 56, 97-99, 188-189, 194, 210, 230-232, 267-269. (206 entries. 1910-13. Regional.)
- 471 LAUNAY, L. de. Les mouvements des eaux souterraines dans la région de Teplitz et de Brüx, en Bohême. Ann. mines, 9 sér. Mém. 16, 1899: 135-136. (14 entries. 1879-98. Regional.)
- 472 NOWAK, ERNST. Geologische Untersuchungen im Südfügel des mittelböhmischen Silur. Austria. Geol. Reichsanst., Jahrb. 64, 1914: 266-268. (72 entries. 1859-1914. Regional.)
- 473 PROCHÁZKA, V. J. Repretorium literatury geologické e mineralogické... od roku 1528 az do 1896. Praz, 1898, 297pp. (1576 entries. 1528-1896. Regional.)
- 474 WOLDRICH, JOSEF. Das Prokopital südlich von Prag. Austria. Geol. Reichsanst., Jahrb. 68, 1918: 109-111. (35 entries. 1861-1917. Regional.)
See 374.
See also CZECHO SLOVAKIA.
- BOLIVIA.**
- 475 DOUGLAS, J. A. Geological sections through the Andes of Peru and Bolivia I-III. Geol. Soc. London, Q. J., 70, 1914: 49; 76, 1920: 58: 77, 1921: 281-282. (53 entries. 1835-1920. Regional.)

- 476 MEYER, H. L. F. Carbonfaunen aus Bolivia und Perú. (Beiträge zur Geologie und Paläontologie von Südamerika. XXII). N. J. f. Min., B. B. 37, 1914: 649-651. (63 entries. 1699-1911. Regional.)
- 477 SCHILLER, WALTHER. Contribución al conocimiento de la formación petrolífera (cretáceo) de Bolivia del sud. La Plata, Mus., Rev. 20, 1913: 169-173. (68 entries. 1835-1912. Regional.)
See 1596a, 2476, 2679, 2686b.
- BORATES.** See 1738.
- BORAX.**
- 478 BAILEY, G. E. Saline deposits of California. Sacramento, 1902, 216pp. Cal. State Min. Bur., Bull. 24. (Bibl., 193-194. 41 entries. 1876-1901. Regional.)
- 479 GALE, H. S. Bibliography. U. S. Geol. Surv., Min. Res. 1913-II, 1914: 523-536. (135 entries. 1844-1913. General.)
- 480 YALE, C. G., and GALE, H. S. Borax. U. S. Geol. Surv., Min. Res. 1914-II, 1916: 289-290. (15 entries. 1902-15. General.)
- BORINGS.**
- 481 DARTON, N. H. Preliminary list of the deep borings in the United States. Second edition, with additions. Washington, 1905, 175pp. U. S. Geol. Surv., Water-supply Paper 149. (Publications [by states]. 143 entries. 1856-1905. Regional.)
- 482 FÖRSTER, B. Ergebnisse der Untersuchung von Bohrproben aus den seit 1904 im Gange befindlichen, zur Aufsuchung von Steinsalz und Kalisalzen ausgeführten Tiefbohrungen im Tertiär des Oberelsass. Alsace Lorraine. Geol. Landesanst., Mitth. 7, 1911: 353. (8 entries. 1871-1909. Regional.)
See 1024, 1058, 1064, 1065, 1068, 1225, 2502.
- BORNEO.**
- 483 EASTON, N. W. Geologie eines Teiles von west-Borneo nebst einer kritischen Uebersicht des dortigen Erzvorkommens. Jaarb. Mijnw. Ned. O-Ind., 33, 1904. Wetens. ged. 8-11. (32 entries. 1879-99. Regional.)
See 1641.
- BORNHOLM.** See DENMARK.
- BOSNIA.**
- 484 KITTL, ERNST. Geologie der Umgebung von Sarajevo. Austria. Geol. Reichsanst., Jahrb. 53, 1903: 663-665. (53 entries. 1840-1903. Regional.)
See 130, 1641.
- BRACHIOPODA.**
- 485 BUCKMAN, S. S. Antarctic fossil brachiopoda collected by the Swedish South Polar expedition. Stockholm, 1910, 40pp. Schwed. Südpolar Exp., 1901-03. Wissenschaft. Ergeb. 3, lief 7. (Bibl., 5-8. 44 entries. 1846-1908. General.)
- 486 BUCKMAN, S. S. Brachiopod homoeomorphy: Pygope, Antinomia, Pygites. Geol. Soc. London, Q. J. 62, 1906: 451-452. (41 entries. 1606-1899. General.)
- 487 CUMINGS, E. R. The morphogenesis of Platystrophia. A study of the evolution of a Paleozoic Brachiopod. Am. Journ. Sci., 4th ser., 15, 1903: 134-136. (83 entries. 1820-1902. General.)
- 488 DIENER, C. Brachiopoda triadica. Berlin, 1920, 108pp. Fossilium catalogus. I: Animalia. 10. (Literature, 5-13. 200 entries. 1834-1915. General.)
- 489 FABIANI, R. I Brachiopodi terziari del Veneto. Padua, Univ., Mem. inst., geol. 2, 1913-14: 41-42. (31 entries. 1824-1913. Regional.)
- 490 HADDING, ASSAR. Kritische Studien über die Terebratula-Arten der schwedischen Kreideformation. Palaeontographica, 63, 1919: [24]. (24 entries. 1812-1909. Regional.)
- 491 HAYASAKA, I. On the Brachiopod genus Lyttonia with several Japanese and Chinese examples. Geol. Soc. Tokyo, Journ. 24, no. 288, 1917: 43(1). (17 entries. 1883-1914. Regional.)
- 492 HUENE, F. H. VON. Die Silurischen Craniaden der Ostseeländer mit Ausschluss Gotlands. Russ. min. Gesell., Verh. 2d ser., 36, 1899: 186-194. (93 entries. 1766-1895. General.)
- 493 KRUMBECK, LOTHAR. Die Brachiopoden- und Molluskenfauna des Glandarienkalkes. Beitr. Paläont. Oesterr-Ung., 18, 1905: 66-70. (163 entries. 1708-1904. General.)
- 494 NETSCHAJEW, A. W. Die fauna der perm-ablagerungen vom osten und vom aeußersten norden des europäischen Russlands. I. Brachiopoda. St. Petersburg, 1911, 164pp. Russian and German text. Russia. Com. géol., Mém. n. f. 61. (Literature, 4-7. 60 entries. 1813-1908. General.)

- 495 ROLLIER, LOUIS. Synopsis des Spirobranches (brachiopodes) jurassiques celto-souabes. Pt. I. Soc. paléont. suisse., Mém. 41, no. 2, 1916: 20-27. (176 entries. 1606-1911. General.)
- 496 ROSENKRANTZ, ALFRED. Craniakalk fra Kjøbenhavns Sydhavn. Kjøbenhavn, 1920, 79pp. Denmark. Geol. undersøg. II Raekke. 36. (Literature, 66-68. 43 entries. 1820-1917. Regional.)
- 497 SHIMER, H. W. Old age in brachiopoda—a preliminary study. Am. Nat., 40, 1906: 120-121. (27 entries. 1856-1904. General.)
- 498 THOMAS, IVOR. The British Carboniferous Orthotetinae. London, 1910, 134pp. Gt. Brit. Geol. Surv., Mem. Pal. 1, pt. 2. (Bibl., 128-132. 57 entries. 1829-1909. General.)
- 499 THOMAS, IVOR. The British Carboniferous Producti. I. Genera Pustula and Overtonia. London, 1914, 366pp. Gt. Brit. Geol. Surv., Mem. Pal. 1, pt. 4. (Bibl., 341-361. 251 entries. 1745-1912. General.)
- 500 WALCOTT, C. D. Cambrian Brachiopoda. Washington, 1912, 872pp. U. S. Geol. Surv., Mon. 51-I. (Bibl., 13-26. 348 entries. 1821-1908. General.)
- 501 WALCOTT, C. D. Cambrian geology and paleontology. No. 3.—Cambrian brachiopoda: descriptions of new genera and species. Washington, 1908. Smith. Misc. Coll. Pt. of Vol. 53. Pub. 1810. (Bibl., 111-116. 72 entries. 1829-1908. General.)
- 502 WALCOTT, C. D. Cambrian geology and paleontology. No. 4.—Classification and terminology of the Cambrian brachiopoda. Washington, 1908. Smith. Misc. Coll. Pt. of Vol. 53. Pub. 1811. (Bibl., 161-163. 26 entries. 1829-1905. General.)
- 503 WIMAN, C. Über die Karbonbrachiopoden Spitzbergens und Beeren Eilands. Upsala, 1914, 91pp. (Literature, 89-91. 52 entries. 1828-1913. Regional.)
- 504 YAKOWLEW, N. Die Anheftung der Brachiopoden als Grundlage der Gattungen und Arten. St. Petersburg, 1908, 32pp. Russian and German text. Russia. Com. géol., Mém. n. s. 48. (Literature, 23-24. 34 entries. 1854-1907. Citations.)
- 505 YAKOWLEW, N. Die Fauna der oberen Abtheilung der palaeozoischen Ablagerungen im Donezbassin. III. Die Brachiopoden—Geologische Resultate der Bearbeitung der Fauna. St. Petersburg, 1912, 41pp. Russian and German text. Russia. Com. géol., Mém. n. s. 79. (Literature, 39-41. 36 entries. 1845-1912. Citations.)
See 1082, 1497a.
- BRAZIL.**
- 506 BRANNER, J. C. Bibliography of the geology, mineralogy, and paleontology of Brazil. Geol. Soc. Am., Bull. 20, 1909: 3-132. (2,000+ entries. 1641-1907. Regional.)
- 507 BRANNER, J. C. Outlines of the geology of Brazil to accompany the geologic map of Brazil. Geol. Soc. Am., Bull. 30, 1919: 189-338. (666 entries. 1817-1917. Regional.)
- 508 DERBY, O. A. The sedimentary belt of the coast of Brazil. Journ. Geol., 15, 1907: 236-237* (18 entries. 1823-1905. Regional.)
- 509 DERBY, O. A. The Serra do Espinhaço, Brazil. Journ. Geol., 14, 1906: 400-401. (22 entries. 1822-1900. Regional.)
- 510 FREISE, FR. Wirtschaftliche Verhältnisse des brasilianischen Edelmetall- und Erzbergbaus. . . . Bergw. Mitt., 4, 1913: 274-276. (75 entries. 1648-1908. Regional.)
- 511 KATZER, FRIEDRICH. Das Amazonas-Devon und seine Beziehungen zu den anderen Devongebieten der Erde. Böhm. Gesell. Wissen., Sitz. 46, 1897: 2. (5 entries. 1874-96. Regional.)
- 512 KATZER, FRIEDRICH. Grundzüge der Geologie des unteren Amazonasgebietes (des staates Pará in Brasilien). Leipzig, 1903, 296pp. (Literature, 31-34. 26 entries. 1824-1902. Regional.)
- 513 LISBOA, M. A. R. Estrada de ferro noroeste do Brasil . . . oeste de S. Paulo Sul de Mato-Grosso. Geologia, industria mineral . . . Rio de Janeiro, 1909, 172pp. (Bibl., 167-169: 31 entries. 1833-1908. Regional.)
- 513a *PAULO DE OLIVEIRA, E. Rochas petrolíferas do Brasil. Trabalhos relativos ao anno de 1918. Rio de Janeiro, 1920, 112pp. Brazil. Serv. geol., Bol. 1. (Bibl., 111-112.)

*Not seen.

- 514 WHITE, I. C. Report on the coal measures and associated rocks of south Brazil. Brazil. Comm. est. min., Final Rept. 1908-I: 287-300. (134 entries. 1827-1906. Regional. Publications relating mostly to the Carboniferous geology of South Brazil . . . from paper by J. C. Branner . . . in Archivos do Museu nacional do Rio de Janeiro, 12, 1903, together with additional titles supplied by Dr. Branner.)
- 515 WOODWORTH, J. B. Geological expedition to Brazil and Chile, 1908-1909. Harvard Univ. Mus. Comp. Zool., Bull. Geol. ser. 10, 1912: 134-137. (63 entries. 1772-1911. Regional.)
See 684, 738, 814, 914, 954, 1641, 2175a, 2255, 2476.
- BRECCIATION.** See 1890.
- BRIQUETTING.**
- 516 WRIGHT, C. L. Briquetting tests at the United States fuel-testing plant Norfolk, Virginia, 1907-8. Washington, 1909, 41pp. U. S. Geol. Surv., Bull. 385. (Bibl., 36-41. 126 entries. 1899-1909. General.)
- 517 WRIGHT, C. L. Briquetting tests of lignite at Pittsburg, Pa., 1908-9. . . . Washington, 1911, 64pp. (Literature, 57-62. 143 entries. 1899-1910. General.)
- 518 WRIGHT, C. L. Fuel-briquetting investigations July 1904, to July, 1912. Washington, 1913, 277pp. U. S. Bur. Mines, Bull. 58. (Literature, 266-270. 148 entries. 1899-1912. General.)
- BRITISH COLUMBIA.**
- 519 ALLAN, J. A. Geology of Field map-area, B. C. and Alberta. Ottawa, 1914, 312pp. Canada. Geol. Surv., Mem. 55. Geol. ser. 46. (Bibl., 244-252. 102 entries. 1846-1913. Regional.)
- 520 BRUCE, E. L. Geology and ore-deposits of Rossland, B. C. Victoria, B. C., 1917, 35pp. British Columbia Dept. Mines, Bull. 4. (Bibl., 3517 entries. 1896-1913. Regional.)
- 521 BURWASH, E. M. J. The geology of Vancouver and vicinity. Chicago, Ill., 1918, 106pp. (Bibl., 29. 5 entries. 1882-1908. Regional. Footnotes.)
- 522 CAIRNES, D. D. Portions of Atlin district British Columbia: with special reference to lode mining. Ottawa, 1913, 129pp. Canada. Geol. Surv., Mem. 37. (Bibl., 6-7. 10 entries. 1898-1911. Regional.)
- 523 CAMSELL, CHARLES. Geology, and mineral deposits of the Tulameen district, B. C. Ottawa, 1913, 188pp. Canada. Geol. Surv., Mem. 26. (Bibl., 10-11. 22 entries. 1862-1911. Regional.)
- 524 CAMSELL, CHARLES. The geology and ore deposits of Hedley mining district British Columbia. Ottawa, 1910, 218pp. Canada. Geol. Surv., Mem. 2. (Bibl., 20-21. 16 entries. 1874-1908. Regional.)
- 525 CLAPP, C. H. Geology of the Nanaimo map-area. Ottawa, 1914, 135pp. Canada. Geol. Surv., Mem. 51. Geol. ser. 43. (Bibl., 7-9. 23 entries. 1859-1913. Regional.)
- 526 CLAPP, C. H. Geology of the Victoria and Saanich map-areas, Vancouver Island, B. C. Ottawa, 1913, 143pp. Canada. Geol. Surv., Mem. 36. Geol. ser. 33. (Bibl., 3-4. 14 entries. 1859-1912. Regional.)
- 527 CLAPP, C. H. Sooke and Duncan map-areas, Vancouver Island . . . Ottawa, 1917, 445pp. Canada. Geol. Surv., Mem. 96. Geol. ser. 80. (Bibl., 7-9. 27 entries. 1868-1914. Regional.)
- 528 CLAPP, C. H. Southern Vancouver Island. Ottawa, 1912, 208pp. Canada. Geol. Surv., Mem. 13. (Bibl., 5-8. 56 entries. 1857-1911. Regional.)
- 529 DRYSDALE, C. W. Geology and ore deposits of Rossland, British Columbia. Ottawa, 1915, 317pp. Canada. Geol. Surv., Mem. 77. Geol. ser. 64. (Bibl., 18-22. 41 entries. 1894-1914. Regional.)
- 530 DRYSDALE, C. W. Geology of Franklin mining camp, British Columbia. Ottawa, 1915, 246pp. Canada. Geol. Surv., Mem. 56. Geol. ser. 56. (Bibl., 177-184. 87 entries. 1879-1911. Regional.)
- 531 DRYSDALE, C. W. Ymir mining camp, British Columbia. Ottawa, 1917, 185pp. Canada. Geol. Surv., Mem. 94. Geol. ser. 76. (Bibl., 3-6. 35 entries. 1894-1915. Regional.)
- 532 LE ROY, O. E. The geology and ore deposits of Phoenix, Boundary district, British Columbia. Ottawa, 1912, 110pp. Canada. Geol. Surv., Mem. 21. (Bibl., 17-18. 16 entries. 1894-1909. Regional.)
- 533 LE ROY, O. E. Mother Lode and Sunset mines, Boundary district, B. C. Ottawa, 1913, 56pp. Canada. Geol. Surv., Mem. 19. Geol.

- ser. 26. (Bibl., 5-6. 18 entries. 1894-1913. Regional.)
- 534 McCONNELL, R. G. Texada Island, B. C. Ottawa, 1914, 112pp. Canada Geol. Surv., Mem. 58. Geol. ser. 48. (Bibl., 2. 6 entries. 1873-1907. Regional.)
- 535 MacKENSIE, J. C. Geology of Graham Island, British Columbia. Ottawa, 1916, 221pp. Canada Geol. Surv., Mem. 88. Geol. ser. 72. (Bibl., 19-21. 31 entries. 1872-1914. Regional.)
- 536 MÉTIN, ALBERT. La Colombie britannique, étude sur la colonisation au Canada. Paris, 1908, 431pp. (Bibl., 397-414. 156 entries. 1880-1906. Regional.)
- 537 REINECKE, LEOPOLD. Ore deposits of the Beaverdell map-area. Ottawa, 1915, 178pp. Canada Geol. Surv., Mem. 79. Geol. ser. 65. (Bibl., 7-8. 12 entries. 1887-1912. Regional.)
- 538 SCHOFIELD, S. J. Geology and ore deposits of Ainsworth mining camp, British Columbia. Ottawa, 1920, 73pp. Canada Geol. Surv., Mem. 117. Geol. ser. 99. (Bibl., 4-5. 15 entries. 1892-1918. Regional.)
- 539 SCHOFIELD, S. J. Geology of Cranbrook map-area, British Columbia. Ottawa, 1915, 245pp. Canada Geol. Surv., Mem. 76. Geol. ser. 62. (Bibl., 6-7. 29 entries. 1882-1914. Regional.)
- 540 WALKER, T. L. Mineralogy of the H. B. mine, Salmo, B. C. Toronto Univ. Studies. Geol. ser. 10, 1918, 25. (6 entries. 1905-18. Regional.)
- See 133, 618, 622, 2155.
- BRITISH GUIANA.** See 2476.
- BROMINE.** See 2378.
- BRUNSWICK.**
- 541 HOEHNE, ERICH. Stratigraphie und Tektonik der Asse und ihres östlichen Ausläufers, des Heeseberges bei Jerxheim. Prussia. Geol. Landesanst., Jahrb. 32-II, 1912: 101-105. (88 entries. 1823-1910. Regional.)
- BRYOZOA.**
- 542 BASSLER, R. S. The Bryozoan fauna of the Rochester shale. Washington, 1906, 137pp. U. S. Geol. Surv., Bull. 292. (Bibl., 8-10. 16 entries. 1874-1901. General.)
- 543 BEUTLER, KARL. Beitrag zur Kenntnis des cyclostomen Bryozoen der älteren Tertiärschichten des südlichen Bayern. Palaeontographica, 54, 1908: 248-250. (76 entries. 1826-1900. General.)
- 544 CANU, F. Bibliographie paléontologique relative aux Bryozoaires du Bassin de Paris. Soc. géol. France, Bull. 4th ser. 15, 1915: 293-305. (28 entries. 1814-92. Regional.)
- 545 CANU, F. Bibliographie primitive relative aux Bryozoaires. Soc. géol. France, Bull. 4th ser., 15, 1915: 187-292. (34 entries. 1555-1792. General.)
- 546 CANU, F. Les Bryozoaires du Patagonien. Échelle des Bryozoaires pour les terrains tertiaires. Soc. géol. France. Mém. Pal. 33, 1904: 25. (25 entries. 1862-1903. Regional.)
- 547 CANU, FERDINAND, and BASSLER, R. S. North American early Tertiary Bryozoa. Washington, 1920, 878pp. U. S. Nat. Mus., Bull. 106. (Catalogue of papers. . . 7-10. 11 entries. 1833-1917. General.)
- 548 CUMINGS, E. R. Development of some Paleozoic bryozoa. Am. Journ. Sci., 4th ser. 17, 1904: 77-78. (48 entries. 1865-1901. General.)
- 549 GREGORY, J. W. Catalogue of the fossil Bryozoa in the department of geology British Museum (natural history). The Cretaceous Bryozoa. Vol. II. London, 1909, 346pp. (Bibl., 315-329. 247 entries. 1816-1908. General.)
- 550 *NEVIANI, A. Bibliografia degli studi sui Briozoi viventi e fossili dal 1800 al 1900. Bol. nat. Siena, 25, 1905; xxi-xxiv, xxv-xxviii, xxix-xxxii.
- 551 *NEVIANI, A. Materiali per una bibliografia italiana degli studi sui Briozoi viventi e fossili dal 1800 al 1900. Continuazione. Bol. nat. Siena, 21, 1901: 4-8, 29-33, 47-50, 66-67, 102-105, 129-133; 23, 1903: 11-15, 31-34, 46-50, 59-62, 75-76, 90-91, 101-102, 109-113.
- 552 NICKLES, J. M., and BASSLER, R. S. A synopsis of American fossil Bryozoa including bibliography and synonymy. Washington, 1900, 663pp. U. S. Geol. Surv., Bull. 173. (Bibl., 125-160. 177 entries. 172-90. Regional.)
- 553 WOLFER, OTTO. Die Bryozoen des schwäbischen Jura. Palaeonto-

*Not seen.

graphica, 60, 1913: 173. (30 entries. 1825-1910. General.)

See 1393.

BUILDING STONES.

- 554 *BAKER, R. T. Building and ornamental stones of Australia. Sydney, 1915, 169pp. New South Wales. Dept. of public instruction. Technical education series. no. 19 [i. e. 20]. (Literature, 168.)
- 554a CULIN, F. L., jr. Building stones. Tucson, Arizona, 1916-17, 11pp. Ariz. Univ., Bull. 40. Econ. ser. 10. (7 entries. 1900-14. General.)
- 555 HERRMANN, O. Steinbruchindustrie und Steinbruchgeologie. Berlin, 1899, 428pp. (Literature, 1-8, 400. 185 entries. 1826-98. General.)
- 556 HOWE, J. A. The geology of building stones. London, 1910, 455pp. (Some useful books, 433-435. 48 entries. 1872-1910. General.)
- 557 MERRILL, G. P., and MATHEWS, E. B. The building and decorative stones of Maryland. Md. Geol. Surv. Vol. 2, 1898: 131-135. (43 entries. 1810-97. Regional.)
- 558 RICHARDSON, C. H. Building stones and clays. A handbook for architects and engineers. Syracuse, N. Y., 1917, 437pp. (References through text. 157 entries. 1872-1916. General.)
- 559 RIES, HEINRICH. Building stones and clay-products. A handbook for architects. 1st ed. N. Y. 1912, 415pp. (Literature, 87-90. 72 entries. 1891-1912. General.)
- 560 SCHAFARZIK, FRANZ. Detaillierte Mitteilungen über die auf dem Gebiete des ungarischen Reiches Befindlichen Steinbrüche. Budapest, 1909, 554pp. Hungary. Geol. Anst., Pub. (Literature, 75-78. 42 entries. 1850-1904. Regional.)

See 1314-1319, 1740a, 2530.

BUKOWINA. See 377.

BURMA.

- 561 PASCOE, E. H. The oil-fields of Burma. Calcutta, 1912, 269pp. India Geol. Surv., Mem. 40-I. (Bibl., 260-269. 186 entries. 1800-1909. Regional.)

See 1506a, 1990.

CALCITE.

- 562 BUMÜLLER, C. Ueber Kalkspat kristalle von Oberscheld. N. J. f. Min., B. B. 28, 1909: 234-235, 284-

185 (70 entries. 1808-1907. General.)

- 563 BUTTGENBACH, H. Contribution a l'étude des calcites belges. Acad. roy. Belg., Mém. sér. 2, 4, 1920, no 2: 3-4. (14 entries. 1885-1908. Regional.)
- 564 GOLDSCHMIDT, V., and WRIGHT, F. E. Ueber Aetzfiguren, Lichtfiguren und Lösungskörper, mit Beobachtungen am Calcit. N. J. f. Min., B. B. 17, 1903: 356-362. (155 entries. 1816-1901. General.)
- 565 PALACHE, CHARLES. The crystallization of the calcite from the copper mines of Lake Superior. Mich. Geol. Surv., Rept., 6-II, 1898: 162-163. (6 entries. 1867-95. Regional.)
- 566 ROGERS, A. F. A list of the crystal forms of calcite with their interfacial angles. Sch. Min. Quart., 22, 1901: 447-448. (39 entries. 1808-1901. General.)
- 567 SCHIEBOLD, ERNST. Die Verwendung der Lauediagramme zur Bestimmung der Struktur des Kalkspates. Leipzig, 1919, 213pp. Sachs. Akad. Wissen. Leipzig, Abh. 36, no. 2. (Literature, 212-213. 61 entries. 1891-1918. General.)
- 568 WHITLOCK, H. P. Calcites of New York. Albany, 1910, 190pp. N. Y. State Mus., Mem. 13. (Bibl., 10-19. 196 entries. 1772-1909. General.)

See 402.

CALIFORNIA.

- 569 ALLING, M. N. Ancient auriferous gravel channels of Sierra County, California. Am. Inst., M. E., Trans. 49, 1915: 255-257. (67 entries. 1856-1908. Regional.)
- 570 ANDERSON, F. M. The Neocene deposits of Kern River, California, and the Temblor Basin. Cal. Acad. Sci., Proc. 4th ser. 3, 1911: 125-126. (29 entries. 1856-1910. Regional.)
- 571 ARNOLD, RALPH. Geology and oil resources of the Summerland district Santa Barbara county California. Washington, 1907, 93pp. U. S. Geol. Surv., Bull. 321. (Previous knowledge of region, 8-16. 17 entries. 1853-1904. Regional.)
- 572 ARNOLD, RALPH, and ANDERSON, ROBERT. Geology and oil resources of the Santa Maria oil district Santa Barbara county California. Washington, 1907, 161pp. U. S. Geol. Surv., Bull. 322. (Pre-

*Not seen.

- vious knowledge of region, 10-14. 9 entries. 1857-1907. Regional.)
- 573 ARNOLD, RALPH, and JOHNSON, H. R. Preliminary report on the McKittrick-Sunset oil region Kern and San Luis Obispo counties, California. Washington, 1910, 225pp. U. S. Geol. Surv., Bull. 406. (Previous knowledge of region, 15-16. 7 entries. 1894-1910. Regional.)
- 574 BAKER, C. L. Notes on the later Cenozoic history of the Mohave Desert region in southeastern California. Cal. Univ. Dept. Geol., Bull. 6, 1911: 382-383. (27 entries. 1856-1911. Regional.)
- 575 BALL, S. H. A geologic reconnaissance in southwestern Nevada and eastern California. Washington, 1907, 218pp. U. S. Geol. Surv., Bull. 308. (Literature, 15-16. 11 entries. 1875-1906. Regional.)
- 576 BOALICH, E. S. Catalogue of the publications of the California state mining bureau 1880-1917. Sacramento, 1918, 44pp. Cal. State Min. Bur., Bull. 77. (112 entries. 1880-1916. Regional.)
- 577 BOYLE, A. C., jr. The geology and ore deposits of the Bully Hill mining district, California. Am. Inst. M. E., Trans. 48, 1915: 114-115. (32 entries. 1849-1911. Regional.)
- 578 BRADLEY, W. W., and others. Mines and mineral resources of the counties of Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus. [Sacramento], 1915, 220pp. Cal. State Min. Bur. (Bibl. Kern county, 97. 46 entries. 1856-1912. Regional.)
- 579 BROWN, C. G. Mines and mineral resources of Shasta county Siskiyou county Trinity county. [Sacramento], 1915, 192pp. Cal. State Min. Bur. (Bibl., 65, 128, 181. 114 entries. 1899-1914. Regional.)
- 580 CASTELLO, W. O. The commercial minerals of California with notes on their uses, distribution, properties, ores, field tests, and preparation for market. Sacramento, 1920, 124pp. Cal. State Min. Bur., Bull. 87. (Bibl., 110-111. 27 entries. 1904-18. Regional.)
- 581 CLARK, B. L. The San Lorenzo series of Middle California. . . . Cal. Univ. Dept. Geol., Bull. 11, 1918: 115-118. (76 entries. 1832-1917. Regional.)
- 582 DICKERSON, R. E. Stratigraphy and fauna of the Tejon Eocene of California. Cal. Univ. Dept. Geol., Bull. 9, 1916: 367-371. (92 entries. 1853-1915. Regional.)
- 583 EAKLE, A. S. Minerals of California. [Sacramento], 1914, 226pp. Cal. State Min. Bur., Bull. 67. (Bibl., 210-219. 299 entries. 1849-1913. Regional.)
- 584 EAKLE, A. S., and others. Mines and mineral resources of Alpine County, Inyo County, Mono County. Sacramento, 1917, 176 pp. Cal. State Min. Bur. (Bibl., 23, 130, 171. 27 entries. 1873-1915. Regional.)
- 585 ELDRIDGE, G. H., and ARNOLD, RALPH. The Santa Clara valley, Puente Hills and Los Angeles oil districts southern California. Washington, 1907, 266pp. U. S. Geol. Surv., Bull. 309. (Bibl., 84 entries. 1856-1906. Regional.)
- 586 ELLIS, A. J., and LEE, C. H. Geology and ground waters of the western part of San Diego county California. Washington, 1919, 321pp. U. S. Geol. Surv., Water-supply Paper 446. (Publications, 288-290. 61 entries. 1856-1916. Regional.)
- 587 HARDER, E. C. Iron-ore deposits of the Eagle Mountains, California. Washington, 1912, 81pp. U. S. Geol. Surv., Bull. 503. (Literature, 8-9. 15 entries. 1894-1910. Regional.)
- 587a HESS, F. L. A reconnaissance of the gypsum deposits of California. . . . Washington, 1910, 36pp. U. S. Geol. Surv., Bull. 413. (Bibl., 5. 7 entries. 1888-1906. Regional.)
- 588 KNOPF, ADOLPH. A geologic reconnaissance of the Inyo range and the eastern slope of the southern Sierra Nevada, California; by Adolph Knopf. With a section on the stratigraphy of the Inyo range by Edwin Kirk. Washington, 1918, 130pp. U. S. Geol. Surv., Prof. Paper 110. (Bibl., 15-16. 28 entries. 1865-1915. Regional.)
- 589 LAWSON, A. C. Description of the San Francisco district; Tamalpais San Francisco, Concord, San Mateo, and Haywards quadrangles. Washington, 1914, 24pp. U. S. Geol. Surv., Geol. Atlas, 193. (Literature, 24. 105 entries. 1839-1914. Regional.)
- 589a LINDGREN, WALDEMAR. The gold-quartz veins of Nevada City and Grass Valley districts, California. U. S. Geol. Surv., Ann. Rept.

- 17, 1896: 16-17. (16 entries. 1853-1895. Regional.)
- 590 LINDGREN, WALDEMAR. The Tertiary gravels of the Sierra Nevada of California. Washington, 1911, 226pp. U. S. Geol. Surv., Prof. Paper 73. (Literature, 12-13. 74 entries. 1856-1908. Regional.)
- 591 MACBOYLE, ERROL. Mines and mineral resources of Nevada County. Sacramento, 1919, 270pp. Cal. State Min. Bur. (Bibliographies in text. 49 entries. 1886-1911. Regional.)
- 592 MACBOYLE, ERROL. Mines and mineral resources of Plumas County. Sacramento, 1920, 188pp. Cal. State Min. Bur. (Bibliographies in text. 52 entries. 1895-1911. Regional.)
- 593 MACBOYLE, ERROL. Mines and mineral resources of Sierra county. Sacramento, 1920, 144pp. Cal. State Min. Bur. (Bibliographies in text. 10 entries. 1886-1911. Regional.)
- 594 McLAUGHLIN, R. P., and WARING, C. A. Petroleum industry of California. [Sacramento], 1914, 519pp. Cal. State Min. Bur., Bull. 69. (Bibl., 497-508. 302 1865-1914. Regional.)
- 595 MENDENHALL, W. C. The hydrology of San Bernardino valley, California. Washington, 1905, 124pp. U. S. Geol. Surv., Water-supply Paper 142. (Bibl., 13-14. 6 entries. 1888-1901. Regional.)
- 596 MERRILL, F. J. H. Mines and mineral resources of Los Angeles County, Orange County, Riverside County. Sacramento, 1917, 136pp. Cal. State Min. Bur. (Bibl., 6, 7, 61, 129. 33 entries. 1888-1908. Regional.)
- 597 NOMLAND, J. O. The Etchgoing Pliocene of Middle California. Cal. Univ. Dept. Geol., Bull. 10, no. 14, 1917. (Bibl. footnotes. 46 entries. 1893-1916. Regional.)
- 598 PACK, R. W. The Sunset-Midway oil field California. Part I. Geology and oil resources. Washington, 1920, 179pp. U. S. Geol. Surv., Prof. Paper 116. (Bibl., 19-20. 19 entries. 1868-1917. Regional.)
- 599 REINHARD, MAX. Interprétation tectonique de la région pétrolifère de la vallée de Santa Clara en Californie. Arch. sci. phys. nat., 5e ser., 1, 1919: 77-78. (13 entries. 1906-17. Regional.)
- 600 SMITH, J. P. Climatic relations of the Tertiary and Quaternary faunas of the California region. Cal. Acad. Sci., Proc. 4th ser., 9, 1919: 169-173. (90 entries. 1849-1918. Regional.)
- 601 SMITH, J. P. The paragenesis of the minerals in the glaucophane-bearing rocks of California. Am. Phil. Soc., Proc. 45, 1906: 240-242. (32 entries. 1876-1906. Regional.)
- 602 TUCKER, W. B., and WARING, C. A. Mines and mineral resources of the counties of Butte, Lassen, Modoc, Sutter and Tehama. Sacramento, 1917, 91pp. Cal. State Min. Bur. (Bibl. of Butte County, 45. 5 entries. 1892-1916. Regional.)
- 603 VOGDES, A. W. Address on books relating to geology, mineral resources, and paleontology of California. San Diego Soc. Nat. Hist., Trans. 1, 1, 1905: 9-23. (225 entries. 1831-1901. Regional.)
- 604 VOGDES, A. W. A bibliography relating to the geology, palaeontology, and mineral resources of California. Sacramento, 1896, 121p. Cal. State Min. Bur., Bull. 10. (845 entries. 1839-96. Regional.)
- 605 VOGDES, A. W. A bibliography relating to the geology, paleontology, and mineral resources of California. Sacramento, 1904, 290pp. Cal. State Min. Bur., Bull. 30. (2300 entries. 1839-1903. Regional.)
- 606 YALE, C. G., *comp.* General index to publications of the California state mining bureau. Sacramento, 1907, 54pp. Cal. State Min. Bur., Bull. 46. (107 entries. 1880-1906. Regional.)
See 464, 478, 655, 956, 961a, 990, 1138, 1139, 1685, 1778, 2057, 2306, 2379, 2727, 2771, 2772, 2773, 2920.
- CAMBRIAN.**
- 607 GRÖNWALL, K. A. Bornholms paradoxislag af deres fauna. Kjøbenhavn, 1902, 230pp. Denmark. Geol. undersøg. II Raekke. 13. (Literature, v-xi. 94 entries. 1847-1901. Regional.)
- 608 MOBERG, J. C., and SEGERBERG, C. O. Bidrag till kännedomen om Ceratopygeregionen . . . Lund, 1906, [116]pp. Lunds geol. fältk., Meddel. B. 2. (Literature, 5-13. 130 entries. 1826-1905. General.)

- 609 WALCOTT, C. D. Cambrian geology and paleontology. II. Abrupt appearance of the Cambrian fauna on the North American continent. Washington, 1910. Smith. Misc. Coll. 57. Pub. 2270. (Bibl. 15-16. 24 entries. 1878-1910. Regional.)
- 610 WALCOTT, C. D. Cambrian geology and paleontology. No. 5—Cambrian sections of the Cordilleran area. Washington, 1908. Smith. Misc. Coll. Part of Vol. 53, Pub. 1812. (Bibl. 218-220. 1839-1908. Regional.)
See 254, 320, 453a, 501, 502, 689, 1034, 1334, 1421, 1654, 1681, 1854, 1954, 2093, 2454, 2557, 2676, 2715, 2720, 2854, 2895a.
- CAMEL.**
- 611 TROXELL, E. L. An Oligocene camel, *Poebrotherium andersoni* n. sp. Am. Journ. Sci., 4th ser., 43, 1917: 389. (9 entries. 1886-1915. General.)
- CANADA.**
- 612 AMI, H. M. Bibliography of Canadian geology and palaeontology for the year 1900-. Roy. Soc. Canada, Proc. & Trans. 2d ser. 7, 1901-. (1900-1907. Regional.)
1900, 2d ser. 7, IV, 1901: 123-133. 92 entries.
1901, 2d ser. 8, IV, 1902: 169-182. 148 entries.
1902, 2d ser. 9, IV, 1903: 173-188. 168 entries.
1903, 2d ser. 10, IV, 1904: 207-219. 216 entries.
1904, 2d ser. 11, IV, 1905: 127-142. 213 entries.
1905, 2d ser. 12, IV, 1906: 301-318. 128 entries.
1906, 3d ser. 1, IV, 1907: 143-156. 179 entries.
1907, 3d ser. 3, IV, 1910: 191-204. 212 entries.
See also the same author's Progress of geological work in Canada during 1899.
- 613 AMI, H. M. Palaeontology and chronological geology. H. Bibliography for 1902. Canada Geol. Surv., Ann. Rept. n. s. 15, 1902-3: 327A-328A. (11 entries. 1902. Regional.)
- 614 AMI, H. M. Progress of geological work in Canada during 1899. Canad. Rec. Sci. 8, 1900: 232-246, 329-331. (132 entries. 1899. Regional.)
See also the same author's Bibliography of Canadian geology and palaeontology for the years 1900-1907 which may be a continuation of the above.
- 615 CHAMBERS, E. J. The unexploited west. A compilation of all of the authentic information available at the present time as to the natural resources of the unexploited regions of northern Canada. Ottawa, 1914, 361+xi pp. (Bibl., i-viii. 113 entries. 1801-1911. Regional.)
- 616 CLAPP, F. G., and others. Petroleum and natural gas resources of Canada, vol. 1. Ottawa, 1914, 378pp. Canada Dept. Mines. Mines Br. 291. (Bibl., 345-359. 226 entries. 1853-1910. Regional.)
- 617 DENIS, L. G., and WHITE, A. V. Water-powers of Canada. Ottawa, 1911, 397pp. Canada. Comm. Con. (Bibl., 348-376. 301 entries. 1849-1910. Regional.)
- 618 DOWLING, D. B. The coal fields of Manitoba, Saskatchewan, Alberta, and eastern British Columbia. Ottawa, 1909, 111pp. Canada Geol. Surv., Pub. 1935. (Bibl., 101-106. 63 entries. 1859-1909. Regional.)
- 619 Guide books of excursions in Canada. 1-10. Ottawa, 1913. Bibl. through texts. 501 entries. 1827-1913. Regional. Nos. 1-5, 8-10 issued by Canada geological survey; Nos. 6-7 issued by Ontario bureau of mines. Issued for the International geological congress, 12th. Toronto, 1913.
- 620 LINDEMAN, E., and BOLTON, L. L., comp. Iron ore occurrences in Canada. Vol. 1. Ottawa, 1917, 71pp. Canada Dept. Mines. Mines Br. 217. (Bibl., 22. 9 entries. 1906-15. Regional.)
- 621 MALCOLM, WYATT. Bibliography of Canadian geology for 1914. Roy. Soc. Canada, Proc. & Trans. 3d ser. 9-IV, 1916: 279-305. (354 entries. 1914. Regional.)
- 622 PENHALLOW, D. P. A report on fossil plants from the International Boundary survey for 1903-05, collected by Dr. R. A. Daly. Roy. Soc. Canada, Proc. & Trans., 3d ser. I-IV, 1907: 333-334. (58 entries. 1828-1905. Regional.)
- 623 REINECKE, L. Bibliography of Canadian geology for the years 1908 to 1911 (inclusive). Roy. Soc. Canada, Proc. & Trans., 3d ser. 6-IV, 1912: 139-226. (1159 entries. 1908-11. Regional.)

- 624 WILLMOTT, A. B. The undeveloped iron resources of Canada. *Canad. Min. Inst., Journ.*, 14, 1911: 225-258. (49 entries. n. d. Regional.)
- 625 WILSON, A. W. G. The Laurentian peneplain. *Journ. Geol.*, 11, 1903: 667-669. (41 entries. 1836-1901. Regional.)
See 29, 30, 31, 32, 33, 74, 717, 718, 725, 741, 1114, 1323, 1327, 1582, 1590, 1641, 1743, 1746, 1829, 2050, 2113, 2162, 2178, 2222, 2374, 2375, 2732, 2807.
See also INDIVIDUAL PROVINCES.
- CANARY ISLANDS.** *See* 2844.
- CANIDAE.** *See* 1620.
- CAPE COLONY.**
- 626 ROGERS, A. W. An introduction to the geology of Cape Colony . . . London, 1905, 463pp. (List of books and papers, 445-451. 106 entries. 1818-1904. Regional.)
See 1641.
See also SOUTH AFRICA.
- CAPE VERDE ISLAND.** *See* 2844.
- CARBONIFEROUS.**
- 627 ARBER, E. A. N. Recent progress in the study of British Carboniferous plants. *Sci. Prog.*, 4, 1910: 146-149. (72 entries. 1901-09. Regional.)
- 628 GIRTY, G. H. The Guadalupian fauna. Washington, 1908, 651pp. U. S. Geol. Surv., Prof. Paper 58. (Bibl., 30-39. 103 entries. 1845-1906. Footnotes.)
- 629 HEMMER, A. Die fossile Flora der Oberen Ottweiler Schichten des Saarbeckens. *Geogn. Jahresh.*, 31-32, 1918-19: 295-297. (57 entries. 1820-1915. Regional.)
- 630 JONGMANS, W. J. Anleitung zur Bestimmung der Karbonpflanzen West-Europas mit besonderer Berücksichtigung der in den Niederlanden und den benachbarten Ländern gefundenen oder noch zu erwartenden Arten. Freiberg in Sachsen, [1911], 482pp. Mededeel. Rijksop. Delfstof., 3. (Literature, 419-440. 295 entries. 1809-1909. Regional.)
- 631 MORSE, W. C. The Maxville limestone. Columbus, Ohio, 1910, 128pp. Ohio Geol. Surv., Bull. 4th ser., 13. (Bibl., 11-34. 36 entries. 1838-1906. Regional.)
- 632 PORONIE, H. Die Silur- und die Culm-Flora des Harzes und des Magdeburgischen. Mit Ausblicken auf die anderen altpaläozoischen. Pflanzenfundstellen des Variscischen Gebirgs-Systems. Berlin, 1901, 183pp. Prussia. Geol. Landesanst., Abh., n. f. 36. (Literature, 176-180. 70 entries. 1837-1901. General.)
- 633 SEWARD, A. C. Notes on the Binney collection of coal-measure plants. Cambridge Phil. Soc., Proc., 10, 1900: 155-157, 173-174. (47 entries. 1832-99. General.)
- 634 STERZEL, J. T. Die Karbon- und Rothliegendfloren im Grossherzogtum Baden. Baden. Geol. Landesanst., Mitth., 5, 1907: 859-869. (164 entries. 1802-1904. General.)
- 635 ZEILLER, R. Flore fossile des gîtes de charbon du Tonkin. Paris, 1903, 328pp. France. Serv. top. souterr., Études gîtes min. Col. franç. (Bibl., 305-316. 176 entries. 1822-1902. Regional.)
- 636 ZIMMERMANN, ERNST. Kohlenkalk und Culm des Velberter Sattels im Süden des westfälischen Carbons. Prussia. Geol. Landesanst., 30-II, 1912: 373-376. (101 entries. 1809-1909. Regional.)
See 322, 367, 416, 458, 476, 450, 457, 457a, 458, 498, 499, 503, 514, 780, 823, 829, 830, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1024a, 1025, 1054, 1057, 1114, 1117, 1141, 1201b, 1238, 1309, 1334, 1412, 1436, 1533, 1548, 1675, 1681, 1703, 1705, 1774, 1848, 1850, 1854, 1980, 1984, 2040, 2093, 2150, 2190, 2193, 2199, 2257, 2412, 2456, 2458, 2459, 2460, 2711, 2719, 2855.
- CARBORUNDUM.** *See* 94.
- CARIBBEAN.** *See* 835.
- CARNIC ALPS.** *See* 146.
- CARPATHIAN MOUNTAINS.**
- 637 BECK, HEINRICH, and VETTERS, HERMANN. Zur Geologie der Kleinen Karpaten. Eine stratigraphisch-tektonische Studie. Beitr. Paläont. Oesterr.-Ung., 16, 1904: 3-5. (76 entries. 1834-1903. Regional.)
See 877, 1394, 1684.
- CARTOGRAPHY.** *See* MAPS.
- CASPIAN.** *See* 679.
- CASSITERITE.** *See* TIN AND TIN ORES.
- CAUCASUS.**
- 638 ANTHULA, D. J. Über die kreidefossilien des Kaukasus mit einem allgemeinen Ueberblick über die Entwicklung der Sedimentärbildungen des Kaukasus. Beitr. Paläont. Oesterr.-Ung., 12, 1900 156-159. (93 entries. 1836-97. General.)
- 639 LISTE BIBLIOGRAPHIQUE des œuvres publiés dans les 'Matériaux pour

- la géologie du Caucase' 1868-99. Matér. géol. Caucase, sér. 3, 3, 1902: 323-328. (27 entries. 1868-99. Regional.)
- 640 LOEWINSON-LESSING, F. Die Vulkanen und Laven des zentralen Kaukasus. T. M. P. M., n. f. 33, 1915: 385-386. (45 entries. 1830-1912. Regional.)
- 641 SIMONOWITCH, S. Excursion a Tkivibouli. Int. Geol. Cong. VII. St. Petersburg, 1897, Guide no. 25a:1. (11 entries. 1839-93. Regional.)
- 642 SPULSKI, B. Zusammenfassende Übersicht der neueren Literatur über die krymo-kaukasischen Neogenablagerungen. Geol. Rundsch., 1, 1910, Besprech.: 197-198. (21 entries. 1902-09. Regional.)
See 1289b.
- CAVES.**
- 643 BLATCHLEY, W. S. Bibliography of Indiana caves and their fauna. Indiana Dept. Geol. Nat. Res. Ann. Rept. 21, 1896: 210-212. (22 entries. 1853-95. Regional.)
- 644 CUTTRISS, S. W. Bibliography. The Yorkshire caves. Yorks. Geol. Soc., Proc., n. s. 15, 1903-1905: 293-304. (210 entries. 1781-1903. Regional.)
- 645 HOVEY, H. C., and CALL, R. E. Bibliographie chronologique et analytique de Mammoth Cave, Kentucky, États-Unis d'Amérique, 1815 à 1914, traduite et ordonnée par E. A. Martel. Spelunca, 9, no. 73, 1914: 3-49. (ca 400 entries. 1815-1914. Regional.)
- 646 *LAZZARINI, A. Bibliografia speleologica friulana, con prefazione Francesco Musoni. Udine, 1905.
- 646a MARTEL, E. A. Applications géologiques de la spéléologie. Ann. mines, sér. 9, t. 10, 1896: 95-97. (38 entries. 1734-1895. Regional.)
- 647 *"MONDO SOTTERRANEO." Rivista per lo studio delle grotte de dei fenomeni carsici-di speleologia e idrologia. Recensioni e annuati bibliografici. Udine, Mondo sotterraneo, 3, 1906-1907: 76-80, 80 bis, 108-112, 130-132; 4, 1907-1908: 39-48.
- 648 VIOLA, C. La struttura carsica osservata in alcuni monti calcarei della provincia romana. Italy. Com. geol., Boll. 28, 1897:

148-160. (83 entries. 1665-96. Footnotes.)

See 2753.

CELEBES.

- 649 AHLBURG, JOHANNES. Versuch einer geologischen Darstellung der Insel Celebes. Geol. u. paläont. Abh., n. f. 12, hft. 1, 1913: 165-170. (175 entries. 1833-1912. Regional.)
- 650 WANNER, J. Die Geologie von Mittel-Celebes nach den neueren Forschungen E. C. Abendanons und anderer. Geol. Rundsch., 10, 1919: 45. (18 entries. 1890-1918. Regional.)
See 1145.

CELESTITE.

- 651 ANDRÉÉ, K. Über den Cölestin im Mokattamkalk von Agypten nebst allgemeinen Bemerkungen über sedimentäre Cölestinvorkommen und einem Anhang über eine Stylocoenia. N. J. f. Min., B. B. 37, 1914: 369-374. (85 entries. 1847-1913. General.)
- 652 CULIN, F. L., jr. Celestite and Strontianite. Tucson, Arizona, 1916-17, 4pp. Ariz. Univ. Bull. 35. Min. tech. ser. 13. (4 entries 1904-14. General.)

CEMENT.

- 653 BASSLER, R. S. The cement resources of Virginia west of the Blue Ridge. . . . Charlottesville, 1909, 309pp. Va. Geol. Surv., Bull. II-A. (Bibl., 294-296. 40 entries. 1880-1908. Regional.)
- 654 CULIN, F. L., jr. Cement. Tucson, Arizona, 1915-16, 15pp. Ariz. Univ., Bull. 25. Econ. ser. 9. (14 entries. 1898-1913. General.)
- 654a ECKEL, E. C. Cement, limes and plasters. N. Y., 1905. 712pp. (References through text.)
- 655 ECKEL, E. C. Portland cement materials and industry in the United States. Washington, 1913, 401pp. U. S. Geol. Surv., Bull. 522. (Bibl. by E. F. Burchard, 375-381. 125 entries. 1888-1912. Regional. Through text are bibliographies by states.)
- 656 GOVERNMENT and state publications on cement materials, cement, and concrete. U. S. Geol. Surv., Min. Res. 1916-II, 1919: 371-375. (138 entries. 1888-1917. Regional.)

CENOZOIC.

- 657 KNOWLTON, F. H. A catalogue of the Mesozoic and Cenozoic plants of North America. Washington, 1919, 815pp. U. S. Geol. Surv.,

*Not seen.

- Bull. 695. (Bibl., 13-44. 1856-1919. Regional.)
See 980, 990, 1612, 2823.
- CENTRAL AMERICA.**
- 658 齧 SAPPER, CARL. Grundzüge des Gebirgsbaus von Mittelamerika. Int. Geog. Cong., Rept. 8, 1905: 231-238. (39 entries. 1841-1903. Footnotes.)
See 2478.
- CEPHALOPODA.**
- 659 BÜLOW-TRUMMER, E. v. Cephalopoda dibranchiata. Berlin, 1920, 313pp. Fossilium catalogus. I: Animalia. Pars. 11. (Literature, 9-58. ca 877 entries. 1715-1919. General.)
- 660 DIENER, C. Cephalopoda triadica. Berlin, 1915, 369pp. Fossilium catalogus. I: Animalia. Pars. 8. (Literature, 5-15. 261 entries. 1831-1913. General.)
- 661 DOUVILLÉ, ROBERT. Céphalopodes Argentins. Soc. géol. France, Mém. Pal. 43, 1910: 21-24. (92 entries. 1806-1909. General.)
- 662 ECK, OTTO. Die Cephalopoden der Schweinfurthschen Sammlung aus der Oberen Kreide Ägyptens. Deutsch. geol. Gesell., Zeit. 66, 1914: 179-180. (24 entries. 1850-1904. Regional.)
- 663 HANIEL, C. A. Die Cephalopoden der Dyas von Timor. Stuttgart, 1915, 153pp. In Wanner, Joh. Paläontologie von Timor. III. Lief. (Literature, 151-153. 49 entries. 1845-1913. General.)
- 664 HEDSTRÖM, HERMAN. Über die gattung Phragmoceras in der obersilurformation Gotlands. Stockholm, 1917, 35pp. Sweden. Sver. geol. Undersök., ser. Ca 15. (Literature, 33-35: 49 entries. 1839-1910. General.)
- 665 HYATT, ALPHEUS, and SMITH, J. P. The Triassic Cephalopod genera of America. Washington, 1905, 394pp. U. S. Geol. Surv., Prof. Paper 40. (Bibl., 211-214. 82 entries. 1825-1905. General.)
- 666 KILIAN, W., and REBOUL, P. Les Céphalopodes Néo-crétacés des îles Seymour et Snow-Hill. Stockholm, 1909, 75pp. Schwed. Südpolar Exp. 1901-1903. Wissenschaft. Ergeb. 3, lief 6. (Bibl., 3-6. 54 entries. 1812-1908. General.)
- 667 PERVINQUIÈRE, L. Études de paléontologie tunisienne. I. Céphalopodes des terrains secondaires Paris, 1907, 438pp. (Bibl., 1-8. 164 entries. 1812-1906. General.)
- 667a *PIA, JULIUS VON. Untersuchungen über die Gattung Oxynotoceras und einige damit zusammenhängende allgemeine Fragen. Wien, 1914, 179pp. Austria. Geol. Reichsanst., Abh. 23, hft. 1. (Cited literature, 3-6.)
- 667b POPOVICI-HATZEG, VALERIUS. Les céphalopodes du jurassique moyen du Mont Strunga (Massif de Bocegi, Roumanie). Paris, 1905, 27pp. Soc. géol. France, Mém. Pal. 35. (Bibl. 8-9. 46 entries. 1830-1904. Regional.)
- 668 ROSENBERG, PAUL. Die liasische Cephalopodenfauna der Kratzalpe im Hagengebirge. Beit. Paläont. Oester-Ung., 22, 1909: 338-342. (160 entries. 1808-1903. General.)
- 669 RUEDEMANN, RUDOLF. Cephalopoda of the Beekmantown and Chazy formation. Albany, 1906, pp. 393-611. N. Y. State Mus., Bull. 90. (Bibl., 527-528. 36 entries. 1847-1905. General.)
- 670 RUEDEMANN, RUDOLF. The structure of some primitive Cephalopods. N. Y. State Mus., Bull. 1905: 339-341. (22 entries. 1867-1900. General.)
- 671 YABE, H. Cretaceous Cephalopoda from the Hokkaido. Tokyo. Imp. Univ. Coll. Sci., Journ. 18, art 2, 1903: 52-54; 20, art. 2, 1904: 42-44. (87 entries. 1840-1903. General.)
See 2577.
- CERAMICS.**
- 672 RIES, HEINRICH. The clay-working industry in 1896. U. S. Geol. Surv., Ann. Rept., 18, 1896-97: 1146-1147. (16 entries. 1895-96. General.)
See 696-707, 1092, 1538, 1740a.
- CERATOPSIA.**
- 673 LULL, R. S. Phylogeny, taxonomy, distribution, habits, and environment of the Ceratopsia. U. S. Geol. Surv., Mon. 49, 1907: 196-198. (106 entries. 1871-1906. General.)
- CERUSSITE.**
- 674 HUBRECHT, P. F. Über Cerussitviellinge von Sardinien. Zeit. f. Kryst., 40, 1905: 149-151. (83 entries. 1801-1903. General.)
- CETACEA.**
- 675 PERKINS, G. H. Fossil Cetacea of the Pleistocene of the United States and Canada, with special reference to Delphinapterus ver-

* Not seen.

- montanus, Thompson. Vermont. State Geol., Rept. 1907-08: 77-78. (19 entries. 1850-1907. General.)
- 676 STROMER, ERNST. Die Archaeoceti des ägyptischen Eozäns. Beitr. Paläont. Oesterr.-Ung., 21, 1908: 174-177. (90 entries. 1849-1907. General.)
- 677 STROMER, ERNST. Zueglodon-reste aus dem oberen Mitteleocän des Fajûm. Beitr. Paläont. Oesterr.-Ung., 15, 1903: 100. (21 entries. 1849-1903. General.)
- CEYLON.**
- 678 GRÜNLING, FR. Ueber die mineralvorkommen von Ceylon. Zeit. f. Kryst., 33, 1900: 209-211. (34 entries. 1681-1900. Regional.)
See 1321, 2689.
- CHANNEL ISLANDS.** See 1334.
- CHELEKEN ISLAND.**
- 679 WEBER, V., and KALICKIJ, K. Cheleken. St. Petersburg, 1911, 180pp. Russia. Com. géol., Mém. n. s. 63. (Literature, 3-16. 55 entries. 1834-1910. Regional.)
- CHELONIA.** See TURTLES.
- CHEMICAL MINERALOGY.** See MINERALOGY, CHEMICAL.
- CHERT.**
- 680 TARR, W. A. Origin of the chert in the Burlington limestone. Am. Journ. Sci., 4th ser. 44, 1917: 451-452. (47 entries. 1878-1913. General.)
- CHIASTOLITE.**
- 681 MAWSON, D. Chiestolites from Bimbowrie, South Australia. Roy. Soc. S. Aust., Mem. 2, 1911: 189. (2 entries. 1902-07. Regional.)
- CHILE.**
- 682 BRÜGGEN, J. Bibliografia minera i jeologica de Chile. Soc. nac. min. Santiago, Bol. Año 36, 31, 1919: 441-513, 539-607. (1350 entries. 1840?-1919. Regional.)
- 683 WOLFF, FERDINAND VON. Beiträge zur Geologie und Petrographie Chile's. Deutsch. geol. Gesell., Zeit., 51, 1899: 472-473. (26 entries. 1846-98. Regional.)
- 684 WOODWORTH, J. B. Geological expedition to Brazil and Chile, 1908-09. Harvard Univ. Mus. Comp. Zool., Bull. geol. ser. 10, no. 1, 1912: 134-137. (63 entries. 1772-1911. Regional.)
See 77, 266, 266b, 515, 1641, 1960, 1961, 2101, 2476.
- CHINA.**
- 685 BLACKWELDER, ELIOT. Rocks from northern and central China. Carnegie Inst. Wash., Publ. 54. Research in China, 1, pt. 2, 1907: 477-478. (11 entries. 1867-1905. Regional.)
- 686 BROWN, J. C. The mines and mineral resources of Yunnan, with short accounts of its agricultural products and trade. Calcutta, 1920, 201pp. India. Geol. Surv., Mem. 47-I. (Previous authors, 40-43. 15 entries. 1873-1913. Regional.)
- 687 LEUCHS, KURT. Ergebnisse neuer geologischer Forschung im Tian-Schan. Geol. Rundsch., 4, 1913: 15-17. (49 entries. 1899-1912. Regional.)
- 688 READ, T. T. The mineral production and resources of China. Am. Inst. M. E., Trans., 43, 1913: 51-53. (58 entries. 1867-1911. Regional.)
- 689 WALCOTT, C. D. The Cambrian faunas of China. Carnegie Inst. Wash., Publ. 54. Research in China, 3, 1913: 11-14. (102 entries. 1852-1916. Regional.)
- 689a *WANG, CHUNG YU. Bibliography of the mineral wealth and geology of China. London, 1912, 63pp.
See 320, 491, 635, 837, 1142, 1526, 1687a.
- CHONDRITE.** See METEORITES.
- CHOSEN.** See KOREA.
- CHRISTMAS ISLAND.**
- 690 ANDREWS, C. W. A monograph of Christmas Island (Indian Ocean): physical features and geology . . . with descriptions of the fauna and flora by numerous contributors London, 1900, 337pp. (List of papers, 318. 21 entries. 1718-1899. Regional.)
- CHROME.**
- 691 MORGAN, P. G. Chrome-iron ore [in New Zealand]. N. Z. Journ. Sci., 2, 1919: 43-44. (29 entries. 1864-1917. Regional.)
- 692 RUMBOLD, W. G. Chromium ore. Imp. Inst. Mon., Chromium ore, 1921: 56-58. (51 entries. 1908-20. Regional.)
See 1740a, 2276.
- CHRYSOTILE.** See ASBESTOS.
- CIRQUES.**
- 693 BROWN, R. M. Cirques: a review. Am. Geog. Soc., Bull. 37, 1905: 91. (12 entries. 1871-1901. General.)
- CLASTIC DIKES.**
- 694 NEWSOM, J. F. Clastic dikes. Geol. Soc. Am., Bull. 14, 1903: 254-267. (67 entries. 1821-1902. Footnotes.)
- CLAY.**
- 695 ASHLEY, H. E. The colloid matter of clay and its measurement.

- Washington, 1909, 65pp. U. S. Geol. Surv., Bull. 388. (References, 59-62. 87 entries. 1854-1908. General.)
- 696 BRANNER, J. C. A bibliography of clays and the ceramic arts. Published by the American ceramic society, 1906, 451pp. (6027 entries. 1732-1906. General. For earlier edition see U. S. Geol. Surv., Bull. 143.)
- 697 GROUT, F. F. Clays and shales of Minnesota. . . . Washington, 1919, 259pp. U. S. Geol. Surv., Bull. 678. (Bibl., 14. 5 entries. 1880-1906. Regional.)
- 698 KEELE, J. Preliminary report on the clay and shale deposits of the province of Quebec. Ottawa, 1915, 280pp. Canada Geol. Surv., Mem. 64. Geol. ser. 52. (Bibl., 139, 145, 196. 12 entries. n. d. Regional.)
- 699 LADD, G. E. A preliminary report on a part of the clays of Georgia. Atlanta, Ga., 1898, 204pp. Georgia Geol. Surv., Bull. 6-A. (Bibl., 193-199. 93 entries. 1878-96. General.)
- 700 RIES, HEINRICH. Clay deposits and clay industry in North Carolina. N. C. Geol. Surv., Bull. 13. (Bibl., 150-152. 55 entries. 1877-97. General.)
- 701 RIES, HEINRICH. Clays of New York: their properties and uses. Albany, 1900, 944pp. N. Y. State Mus., Bull. 35. (Bibl., 908-912. 80 entries. 1878-97. General.)
- 702 RIES, HEINRICH. Report on the clays of Maryland. Md. Geol. Surv., Vol. 4, 1902: 488-493. (74 entries. 1877-1901. General.)
- 703 RIES, HEINRICH, and KÜMMEL, H. The clays and clay industry of New Jersey. Trenton, N. J., 1904, 548pp. N. J. Geol. Surv., Final Rept. 6. (Bibl., 513-518. 76 entries. 1877-1901. General.)
- 704 RIES, HEINRICH, and LEIGHTON, HENRY. History of the clay-working industry in the United States. 1st ed. N. Y. 1909, 270pp. (Bibl., 241-245. 172 entries. 1811-1908. Regional.)
- 705 U. S. GEOLOGICAL SURVEY. Survey publications on clays, fuller's earth, etc. *Its Min. Res.*, 1914-II, 1916: 545-548. (86 entries. 1883-1914. Regional.)
- 706 WHEELER, H. A. Clay deposits. Jefferson City, 1896, 622pp. Mo. Geol. Surv., 11. (Bibl., 603-610. 174 entries. 1838-95. General.)
- 707 YEATES, W. S. Bibliography [on clay and its manufacture] Georgia Geol. Surv., Bull. 6-A, 1898, App: 193-199. (93 entries. 1875-97. General.)
See 558, 559, 802, 1381a, 1903, 2434, 2865.
See also LATERITE.
- CLAY-VEINS.**
- 708 GRESLEY, W. S. Clay-veins vertically intersecting coal measures. Geol. Soc. Am., Bull. 9, 1898: 57-58. (21 entries. 1821-89. Select.)
- CLIMATE AND CLIMATOLOGY.**
- 709 ANDERSSON, GUNNAR. The climate of Sweden in the late-Quaternary period. Facts and theories. Stockholm, 1909, 88pp. Sweden. Sver. geol. undersök., C 218. *Arsbok* 3 (1909) 1. (Works, 78-88. 81 entries. 1861-1909. Regional.)
- 709a HANN, JULIUS. Handbuch der Klimatologie. 2d ed. 3 vols. Stuttgart, 1897. (Vol. I translated by R. DeC. Ward, Handbook of Climatology. New York, 1903.) (Many references.)
- 710 SEMPER, M. Das Klimaproblem der Vorzeit. Geol. Rundsch., 1, 1910. *Besprech.*; 57-60. (70 entries, 1906-09. General.)
See 2841.
- COAL.**
- 711 ALVAREZ, H. H. Combustibles sólidos de la República Argentina. Buenos Aires, 1920, 79pp. Argentine Republic. Dir. gen. min., Bol. 12-D. (Bibl., 77-79. 47 entries. 1869-1917. Regional.)
- 712 ASHLEY, G. H. Rhode Island coal. Washington, 1915, 62pp. U. S. Geol. Surv., Bull. 615. (Papers and reports, 58-59. 24 entries. 1838-1913. Regional.)
- 713 BALL, V., and SIMPSON, R. R. The coalfields of India. Calcutta, 1913, 147pp. India Geol. Surv., Mem. 41. (Bibl., 128-147. ca 600 entries. 1777-1911. Regional.)
- 714 BONE, W. A. Coal and its scientific uses. London, 1918, 491pp. (Bibl., 481-483. 54 entries. 1872-1918. General.)
- 715 BROOKS, A. H. Alaska coal and its utilization. U. S. Geol. Surv., Bull. 442, 1910; 95-100. (106 entries. 1882-1910. Regional.)
- 716 DANIELS, JOSEPH. The coal fields of Pierce County. Olympia, 1914, 146pp. Wash. Geol. Surv., Bull. 10. (Bibl. 130-131. 29 entries. 1867-1914. Regional.)
- 717 DENIS, THEO. The coal fields of Canada. Canada Geol. Surv.

- Ann. Rept. 1902, 1903: 89s-93s. (104 entries. 1866-1903. Regional.)
- 718 DOWLING, D. B. Coal fields of Manitoba, Saskatchewan, Alberta, and eastern British Columbia. (Revised edition). Ottawa, 1914, 142pp. Canada Geol. Surv., Mem. 53. Geol. ser. 44. (Bibl., 123-131. 122 entries. 1859-1911. Regional.)
- 719 DUNSTAN, B. Coal resources of Queensland (a general review). Brisbane, 1913, 29pp. Queensland Geol. Surv., Publ. 239. (Bibl., 24-29. 66 entries. 1876-1912. Regional.)
- 720 FENNEMAN, N. M., and GALE, H. S. The Yampa coal field, Routt county, Colorado. . . . Washington, 1906, 96pp. U. S. Geol. Surv., Bull. 297. (Literature, 11. 10 entries. 1872-1905. Regional.)
- 721 FIELDNER, A. C., and others. Analyses of mine and car samples of coal collected in the fiscal years 1911 to 1913. Washington, 1914, 444pp. U. S. Bur. Mines, Bull. 85. (Bibl., 417-424. 146 entries. 1856-1912. Regional.)
- 722 FIELDNER, A. C., and others. The fusibility of coal ash and the determination of the softening temperature. Washington, 1918, 146pp. U. S. Bur. Mines, Bull. 129. (Bibl., 119-138. 187 entries. 1886-1917. General.)
- 723 FRANCHI, S., and others. Studio geologico-minerario sui giacimenti di antracite della Alpi occidentali Italiane. Roma, 1903, 232pp. Italy. Com. geol., Mem. carta geol., 12. (Bibl., xiii-xv. 60 entries. 1784-1903. Regional.)
- 724 GAEBLER, C. Das Oberschlesische Steinkohlenbecken. Kattowitz O-S, 1909, 299pp. (Literature, 256-261. 108 entries. 1822-1908. Regional.)
- 725 GRAY, F. W. The coal-fields and coal industry of eastern Canada. A general survey and description. Ottawa, 1917, 67pp. Canada Dept. Mines. Mines Br., Bull. 14. (Bibl. partial, 55-60. 83 entries. 1827-1915. Regional.)
- 726 GREAT BRITAIN. Royal commission on coal supplies. Digest of the evidence given before the Royal commission on coal supplies (1901-05). . . . 3 vols. London, 1905-07. (Bibl., v. 1:447-457; 2:399-409. 445 entries. 1806-1905. Regional.)
- 727 HERMITTE, E. Carbón, petróleo y agua en la República Argentina. Argentine. Rep. Min. agri., An. 1, no. 1, 1904: 141-143. (55 entries. 1880-1903. Regional.)
- 727a *HERMITTE, ENRIQUE. Coal, petroleum and water in Argentine. Tr. by Robert Levillier. Buenos Aires, 1904, 85pp. (Bibl., 83-85.)
- 727b *HEUSLER, CONRAD. Beschreibung des Bergreviers Brühl-Unkel und des niederrheinischen Braunkohlenbeckens. Bonn, 1897, 329pp. (Literatur, 228-232.)
- 728 JILLSON, W. R. A bibliography of the coals of Kentucky. Ky. Dept. Geol. and Forest., Ser. v, 1 no. 3. 1919: 285-301. Bull. 5th ser. 4, 1920: 140-156. (222 entries. 1825-1919. Regional.)
- 729 JILLSON, W. R. The oil and gas geology of Breathitt and Knott counties. Annotated bibliography. Ky. Dept. Geol. and Forest., Bull. 5th ser. 4, 1920: 100-104. (26 entries. 1857-1919. Regional.)
- 730 KEYES, C. R. Names of coals west of the Mississippi River. Iowa Acad. Sci., Proc., 8, 1901: 132-137. (88 entries. 1870-95. Regional.)
- 731 LEE, W. T., and NICKLES, J. M. Classified list of papers dealing with coal, coke, lignite, and peat contained in publications of U. S. Geological survey, except those on Alaska. U. S. Geol. Surv., Bull. 341, 1909: 419-436. (362 entries 1883-1909. Regional. For earlier edition see Bulletin 316; also below No. 736.)
- 732 LEES, J. H., comp. Bibliography of Iowa coals. Iowa Geol. Surv., Ann. Rept. 1908, 1909: 659-687. (750 entries. 1839-1908. Regional.)
- 733 LORD, N. W. Analyses of coals in the United States. Washington, 1913, 1200pp. U. S. Bur. Mines, Bull. 22. (Bibl., 1158-66. 139 entries. 1878-1912. Regional.)
- 734 MARTIN, G. C. Geology and mineral resources of the Controller Bay region, Alaska. Washington, 1908, 141pp. U. S. Geol. Surv., Bull. 335. (Bibl., 130-133. 70 entries. 1896-1907. Regional.)
- 735 MORGAN, P. G. Picton coal. N. Z. Geol. Surv., Ann. Rept. 9, 1915: 83. (8 entries. 1877-1913. Regional.)

*Not seen.

- 736 NICKLES, J. M., and LEE, W. T. Classified list of papers dealing with coal, coke, lignite, and peat contained in publications of United States Geological Survey. U. S. Geol. Surv., Min. Res. 1910-II, 1911: 226-242; 1914-II, 1916: 744-746. (508 entries. 1883-1915. Regional.)
- 737 PARKER, E. W. Coal. U. S. Geol. Surv., Min. Res. 1908-II, 1909: 173. (21 entries. 1876-1909. Regional.)
- 738 PAULO DE OLIVEIRA, EUZEBIO. Regiões carboníferas dos Estados do Sul. Rio de Janeiro, 1918, 125pp. Brazil. Serv. geol. (Bibl., 123-125. 29 entries. 1878-1916. Regional.)
- 739 PHALEN, W. C. Economic geology of the Kenova quadrangle Kentucky, Ohio, and West Virginia. Washington, 1908, 158pp. U. S. Geol. Surv., Bull. 349. (Bibl., 151-152. 36 entries. 1883-1908. Regional.)
- 740 PHILLIPS, W. B., and WORRELL, S. H. The fuels used in Texas. Austin, Tex., 1913, 287 pp. Texas. Univ. Bull. 307. Sci. ser. 35. (Bibl., 244-269. ca 300 entries. 1848-1914. Regional. Bibliography includes coal, lignite, natural and producer gas and petroleum in Texas.)
- 741 PORTER, J. B., and DURLEY, R. J. An investigation of the coals of Canada with reference to their economic qualities. . . . Vol. 1. Ottawa, 1912, 243pp. Canada Dept. Mines. Mines Br. 83. (Bibl., 122-126. 138 entries. 1863-1911. Regional.)
- 742 RANDALL, D. T. The burning of coal without smoke in boiler plants. A preliminary report. Washington, 1908, 26pp. U. S. Geol. Surv., Bull. 334. (Bibl., 22-26. 57 entries. 1854-1907. General.)
- 743 RONALDSON, J. H. Coal. Imp. Inst. Mon., Coal, 1920: 160-166. (172 entries. 1867-1918. General.)
- 744 ROWE, J. P. Montana coal and lignite deposits. Montana, Univ. Bull. 37. Geol. ser. 2, 1906: 80. (23 entries. 1880-1905. Regional.)
- 745 RUBEL, A. C. Coal in Arizona. Tucson, Arizona, 1915-16, 12pp. Ariz. Univ., Bull. 17. Econ. ser. 6. (6 entries. 1901-10. Regional.)
- 746 SALZMANN, W. Das Braunkohlen-vorkommen im Geiseltal mit besonderer Berücksichtigung der Genesis. Berlin, 1914, 105pp. Arch. Lagerstättenf., 17. (Literature, [ii]. 14 entries. 1872-1910. Regional.)
- 747 SCHREIBER, F. Die Kohlenfelder der Gondwana-Formation in Britisch-Indien. Dargestellt an Hand der bis zum Jahre 1909 erschienenen Literatur. Zeit. f. prakt. Geol., 19, 1911: 171-172. (113 entries. 1856-1910. Regional.)
- 748 STEBINGER, EUGENE. The coal fields of Montana. Am. Inst. M. E., Trans. 46, 1914: 918-919. (54 entries. 1865-1912. Regional.)
- 749 STEVENSON, J. J. The formation of coal beds. Am. Phil. Soc., Proc., 50, 1911: 1-116. (111 entries. 1702-1910. General. Footnotes.)
- 750 STONE, R. W. Coal on Dan River, North Carolina. U. S. Geol. Surv., Bull. 471, 1912: 169. (15 entries. 1825-1902. Regional.)
- 751 STONE, R. W. Coal resources of the Russell Fork basin in Kentucky and Virginia. Washington, 1908. 127pp. U. S. Geol. Surv., Bull. 348. (Bibl., 121-122. 24 entries. 1883-1908. Regional.)
- 752 THOMSON, J. A. Coal prospects of the Waimate district, south Canterbury. N. Z. Geol. Surv., Ann. Rept. 8, 2d. ed., 1914: 162. (9 entries. 1877-1905. Regional.)
- 753 TILLE, W. Die Braunkohlenformation im Herzogtum Sachsen-Altenburg und im südlichen Teil der Provinz Sachsen. Berlin, 1915, 66pp. Arch. Lagerstättenf., 21. (Literature, 62-64. 58 entries. 1674-1913. Regional.)
- 754 WEHRLI, LEO. Die postkarbonischen Kohlen der Schweizeralpen. Bern, 1919, 110pp. Beitr. geol. Karte Schweiz, Geotech. ser., 7. (Bibl., 24, 32, 40-41, 43, 69, 72, 74-75, 82-83, 84, 90-91. 150 entries. 1699-1918. Regional.)
- 755 WOOLSEY, L. H., RICHARDS, R. W., and LUPTON, C. T. The Bull Mountain coal field Musselshell and Yellowstone counties Montana. Washington, 1917, 218pp. U. S. Geol. Surv., Bull. 647. (Earlier pub., 11-12. 15 entries. 1874-1914. Regional.)
See 203, 457, 457a, 618, 682, 1054, 1160, 1200, 1543, 1774, 1812, 1815, 1848, 1865, 2193, 2194, 2347, 2457, 2498, 2707, 2855, 2916.
See also LIGNITE.

"COAL BALLS."

- 756 STOPES, M. C., and Watson, D. M. S. On the present distribution and origin of the calcareous concretions in coal seams, known as "Coal Balls." Roy. Soc. Lond., Phil. Trans., B 200, 1908: 213-216. (39 entries. 1836-1907. General.)

COAL DUST EXPLOSIONS.

- 757 RICE, G. S. The explosibility of coal dust. Washington, 1910, 186pp. U. S. Geol. Surv., Bull. 425. (Bibl., 168-182. 317 entries. 1800-1909. Select.)
- 758 RICE, G. S. The explosibility of coal dust. Washington, 1911, 204pp. U. S. Bur. Mines, Bull. 20. (Bibl., 184-189. 355 entries. 1800-1910. Select.)

COAL MINES AND MINING.

- 759 HUGHES, H. W. A text-book of coal-mining, for the use of colliery managers and others. 4th ed., London, 1901, 527pp. (Bibl. at end of chapters. General.)

COAL TESTING.

- 760 BRECKENRIDGE, L. P. A study of four hundred steaming tests made at the fuel-testing plant, St. Louis, Mo. in 1904, 1905, and 1906. Washington, 1907, 196pp. U. S. Geol. Surv., Bull. 325. (Bibl., 179. 25 entries. 1902-06. General.)

See 722, 741, 742.

COAL WASHING.

- 761 WYER, S. S. Bibliography of coal-washing. Am. Inst. M. E., Trans., 37, 1907: 256-264. (208 entries. 1851-1905. General.)

COASTS. See SHORE LINES.**COBALT. See 1740a, 2026, 2293.****COELENTERATA.**

- 762 FELIX, J. Anthozoa palaeocretacea. Berlin, 1914, 84pp. Fossilium catalogus. I: Animalia. Pars 5. (Literature, 3-11. 182 entries. 1816-1910. General.)

See 1393.

COKE.

- 763 HARPER, L. F. The coke industry of New South Wales. . . . Sydney, 1916, [85]pp. New South Wales Geol. Surv., Min. Res. 23. (Literature, 6. 9 entries. 1899-1915. General.)
- 764 OVITZ, F. K. Coking of Illinois coals. Washington, 1917, 71pp. U. S. Bur. Mines. Bull. 138. (Bibl., 65. 16 entries. 1906-1915. Select.)
- 765 PARKER, E. W. Coke. U. S. Geol. Surv., Min. Res. 1907-II, 1908:

289-290. (25 entries. 1905-08. Regional.)

See 731, 736, 1393.

COLLOIDS. See 695, 926, 1760, 2465, 2466. COLOMBIA.

- 766 NICHOLS, H. W. The ores of Colombia from mines in operation in 1892. Field Columbian Mus., Pub. 33. Geol. ser. 1, no. 3, 1899: 174-176. (34 entries. 1839-99. Regional.)
- 767 OSPINA, TULLIO. Geología general y económica de Colombia. Pan-Am. Sci. Cong. Wash. D. C., Proc. 2d. Sect. VII, 1917: 347. (9 entries. 1911-15. Regional.)

See 1006, 2476.

COLOR PRESERVATION.

- 768 GREGER, D. K. A color-marked Euconospira from the Pennsylvanian of Missouri, and a list of references to coloration in fossil shells. Nautilus, 30, 1917: 116-117. (28 entries. 1836-1914. General.)

See 1232.

COLORADO.

- 769 AURAND, H. A. Mineral deposits of the Western Slope. Denver, Col., 1920, 78pp. Colo. Geol. Surv., Bull. 22. (Bibl., 62-72. 196 entries. 1876-1920. Regional.)
- 770 BASTIN, E. S., and HILL, J. M. Economic geology of Gilpin County and adjacent parts of Clear Creek and Boulder counties, Colorado. Washington, 1917, 379pp. U. S. Geol. Surv., Prof. Paper 94. (Literature, 22. 19 entries. 1873-1916. Regional.)
- 771 BATHER, F. A. Visit to the Florissant exhibit in the British Museum (Natural History). Geol. Assoc., Proc. 21, 1909-1910: 164-165. (46 entries. 1906-08. Regional. A list of papers relating to the Florissant fossils published after 1905.)
- 772 BIBLIOGRAPHY of papers dealing with the geology and natural history of north-western Colorado. Colo. Univ. Studies, 7, 1910: 151-153. (32 entries. 1876-1909. Regional.)
- 773 BUTTERS, R. M. Permian or "Permo-Carboniferous" of the eastern foothills of the Rocky Mountains in Colorado. Denver, Col., 1913, pp. [61]-101. Colo. Geol. Surv., Bull. 5-II. (Bibl., 92-94. 32 entries. n. d. Regional.)
- 774 CRAWFORD, R. D. Geology and ore deposits of the Monarch and Tomichi districts Colorado. Den-

- ver, Col., 1913, 317pp. Colo. Geol. Surv., Bull. 4. (Bibl., 23. 14 entries. 1874-1910. Regional.)
- 775 CRAWFORD, R. D., and WORCESTER, P. G. Geology and ore deposits of the Gold Brick district, Colorado. Denver, Col., 1916, 116pp. Colo. Geol. Surv., Bull. 10. (Bibl., 14. 4 entries. 1896-1913. Regional.)
- 776 CROSS, WHITMAN, and HOWE, ERNEST. Red beds of southwestern Colorado and their correlation. Geol. Soc. Am., Bull. 16, 1905: 496-498. (45 entries. 1874-1905. Regional.)
- 777 EMMONS, S. F. Introduction to geology of the Aspen mining district, Colorado. U. S. Geol. Surv., Mon. 31, 1898: xxxii. (10 entries. 1887-95. Regional.)
- 778 GEORGE, R. D., and CRAWFORD, R. D. The Hahns Peak region Routt county Colorado. An outline survey. Colo. Geol. Surv., 1st Rept., 1908, 1909: 229. (7 entries. 1897-1906. Regional.)
- 779 GEORGE, R. D., CURTIS, H. A., and others. Mineral waters of Colorado. Denver, Col., 1920, 474pp. Colo. Geol. Surv., Bull. 11. (Bibl., 470. 14 entries. 1892-1918. Regional.)
- 780 GIRTY, G. H. The Carboniferous formations and faunas of Colorado. Washington, 1903, 546pp. U. S. Geol. Surv., Prof. Paper 16. (Bibl., 10-26. 140 entries. 1853-1902. Regional.)
- 781 GROUT, F. F., WORCESTER, P. G., HENDERSON, JUNIUS. Reconnaissance of the geology of the Rabbit Ears region Routt, Grand and Jackson counties, Colorado. Denver, Col., 1913, 57pp. Colo. Geol. Surv., Bull. 5-I. (Bibl., 42. 10 entries. 1869-1908. Regional.)
- 782 HENDERSON, C. W. Colorado. (Precious and semiprecious metals in the western states in 1912 [Mine production]). U. S. Geol. Surv., Min. Res. 1912-I, 1913: 704-705. (60 entries. 1883-1913. Regional.)
- 783 HENDERSON, JUNIUS. The Cretaceous formations of northeastern Colorado and the Foothills formations of north-central Colorado. Denver, Col., 1920, 98pp. Colo. Geol. Surv., Bull. 19. (Bibl., 94-96. 41 entries. 1873-1917. Regional.)
- 784 HENDERSON, JUNIUS. Extinct glaciers in Colorado. Colo. Univ. Studies, 3, 1905: 44. (21 entries. n. d. Regional.)
- 785 HENDERSON, JUNIUS. The Foothills formations of north central Colorado. Colo. Geol. Surv., 1st Rept. 1908, 1909: 185-188. (41 entries. 1873-1908. Regional.)
- 785a HENDERSON, JUNIUS. The Tertiary lake basin of Florissant, Colorado. Colo. Univ. Studies, 3, no. 3, 1906: 145-156.
- 786 HOWELL, J. V. Twin Lakes district of Colorado. Denver, Col., 1919, 108pp. Colo. Geol. Surv., Bull. 17. (Bibl., 16-17. 17 entries. 1873-1909. Regional.)
- 787 IRVING, J. D., and BANCROFT, HOWLAND. Geology and ore deposits near Lake City, Colorado. Washington, 1911, 128pp. U. S. Geol. Surv., Bull. 478. (Bibl., 122-123. 9 entries. 1874-1908. Regional.)
- 788 JONES, O. M. Bibliography of Colorado geology and mining with subject index from the earliest explorations to 1912. Denver, Col., 1914, 493pp. Colo. Geol. Surv., Bull. 7. (ca 3200 entries. 1821?-1912. Regional.)
- 789 KIRCHNER, W. C. G. Contribution to the fossil flora of Florissant, Colorado. St. Louis Acad. Sci., Trans. 8, 1898: 187-188. (18 entries. 1847-98. Regional.)
- 790 LEE, W. T., and KNOWLTON, F. H. Geology and paleontology of the Raton Mesa and other regions in Colorado and New Mexico. Washington, 1917, 450pp. U. S. Geol. Surv., Prof. Paper 101. (Bibl., 17-37. 251 entries. 1821-1916. Regional.)
- 791 LINDGREN, WALDEMAR, and RANSOME, F. L. Geology and gold deposits of the Cripple Creek district, Colorado. Washington, 1906, 516pp. U. S. Geol. Surv., Prof. Paper 54. (Literature, 15-17. 38 entries. 1893-1904. Regional.)
- 792 LOUGHLIN, G. F. The oxidized zinc ores of Leadville, Colorado. Washington, 1918, 91pp. U. S. Geol. Surv., Bull. 681. (Literature, 16-17. 8 entries. 1911-17. Footnotes.)
- 793 PATTON, H. B. Geology and ore deposits of the Bonanza district Saguache county Colorado. Denver, Col., 1916, 136pp. Colo. Geol. Surv., Bull. 9. (Bibl., 15. 5 entries. 1873-1914. Regional.)
- 794 PATTON, H. B. Geology and ore deposits of the Platoro-Summitville mining district Colorado.

- Denver, Col., 1917, 122pp. Colo. Geol. Surv., Bull. 13. (Bibl., 14-15. 7 entries. 1875-1917. Regional.)
- 795 PATTON, H. B., HOSKIN, A. J., BUTLER, G. M. Geology and ore deposits of the Alma district Park county, Colorado. Denver, Col., 1912, 284pp. Colo. Geol. Surv., Bull. 3. (Bibl., 272. 13 entries. 1873-1911. Regional.)
- 796 PATTON, H. B., SMITH, C. E., and others. Geology of the Grayback mining district Costilla county Colorado. Denver, Col., 1910, 111pp. Colo. Geol. Surv., Bull. 2. (Bibl., 98-99. 15 entries. n. d. Regional.)
- 797 RANSOME, F. L. Geology and ore deposits of the Breckenridge district, Colorado. Washington, 1911, 187pp. U. S. Geol. Surv., Prof. Paper 75. (Literature, 21-24. 16 entries. 1872-1909. Regional. Each article abstracted.)
- 798 RANSOME, F. L. A report on the economic geology of the Silverton quadrangle, Colorado. Washington, 1901, 265pp. U. S. Geol. Surv., Bull. 182. (Bibl., 15-18. 48 entries. 1874-1900. Regional.)
- 799 SIEBENTHAL, C. E. Geology and water resources of the San Luis valley, Colorado. Washington, 1910, 128pp. U. S. Geol. Surv., Water-supply paper 240. (Literature, 8-9. 20 entries. 1875-1910. Regional.)
- 800 WORCESTER, P. G. The geology of the Ward region, Boulder county, Colorado. Denver, Col., 1920, 74pp. Colo. Geol. Surv., Bull. 21. (Bibl., 72. 16 entries. 1867-1917. Regional.)
See 655, 720, 1096, 1132, 1606, 1770, 2015a, 2294, 2726, 2727, 2772, 2840, 2920.
- COLORADO RIVER.**
- 801 LA RUE, E. C. Colorado river and its utilization. Washington, 1916, 231pp. U. S. Geol. Surv., Water-supply Paper 395. (Publications, 31-36. 43 entries. 1889-1915. Regional.)
- COLUMBIA.** See 1641.
- COMASKER ALPS.** See 147.
- CONCRETIONS.**
- 802 SHELDON, J. M. A. Concretions from the Champlain clays of the Connecticut Valley. Boston, 1900, 45pp. (Literature, 39-81. 81 entries. 1815-98. General. On general subject of concretions, concretionary structure, and drift clays.)
- CONGLOMERATES.** See 1675, 1970.
- CONGO FREE STATE.** See BELGIAN CONGO.
- CONNECTICUT.**
- 803 GREGORY, H. E. Bibliography of the geology of Connecticut. New Haven, 1907, 123pp. Connect. Geol. Surv., Bull. 8. (591 entries. 1809-1906. Regional.)
- 804 LULL, R. S. The life of the Connecticut Trias. Am. Journ. Sci., 4th ser., 33, 1912: 421. (11 entries. 1858-1911. General.)
- 805 LULL, R. S. Triassic life of the Connecticut valley. Hartford, 1915, 285pp. Connect. Geol. Surv., Bull. 24. (Bibl., 265-271. 69 entries. 1820-1913. Regional.)
See 2727.
- CONTACT METAMORPHISM.** See 399.
- CONULARIA.**
- 806 SLATER, I. L. A monograph of British Conulariae. London, 1907, 40pp. Pal. Soc. Publ. (History, 1-4. 16 entries. 1793-1902. General.)
- COPPER.**
- 807 BALL, L. C. The Einasleigh Freehold copper mine N. Q. Brisbane, 1914, 30pp. Queensland Geol. Surv., Publ., 246. (Literature, 7. 3 entries. 1867-1911. Regional.)
- 808 BANCROFT, J. A. Report on the copper deposits of the eastern townships of the province of Quebec. Quebec, 1915, 295pp. Quebec. Dept. Coloniz. Mines Br. (Bibl., 288-291. 47 entries. 1847-1915. Regional.)
- 809 DELKESKAMP, RUDOLF. Das Kupfererzorkommen zu Riparbella (Cecina) in der Toscana. Zeit. f. prakt. Geol., 1907: 393-437. (Bibl. through text. Regional.)
- 810 DONNELLY, T. F. The copper deposits of San Cristobal, Santo Domingo. Am. Inst. M. E., Trans. 52, 1916: 654-655. (6 entries. 1872-1915. Regional.)
- 811 KEMP, J. F. The deposits of copper-ores at Ducktown, Tennessee. Am. Inst. Min. Eng., Trans. 31, 1902: 265. (7 entries. 1855-95. Regional.)
- 812 ODENDALL, LEONHARD. Die Kupfererzlagertstätten in Nordamerika. Köln, 1909, 63pp. (Literature, 53-57. 63 entries. 1877-1909. Regional.)
- 813 STICKNEY, A. W. The pyritic copper deposits of Kyshtim, Russia

- Econ. Geol., 10, 1915: 633. (5 entries. 1902-12. Regional.)
- 813a WAAGEN, LUKAS, Kufererze. "Bergbau und Hütte" June-July, 1919: 21-22. (74 entries. 1855-1914. Regional.)
See 292, 295, 296, 297, 782, 1304, 1305, 1406, 1511a, 1740a, 1816, 1867, 1868, 2059, 2284, 2490, 2669, 2774, 2780, 2782, 2788.
- CORAL REEFS AND ISLANDS.**
- 814 BRANNER, J. C. Annotated bibliography of the stone reefs of Brazil. Harvard Univ., Mus. Comp. Zool., Bull. Geol. ser. 7, 1904: 201-225. (84 entries. 1608-1897. Regional.)
- 815 DAVIS, W. M. Subsidence of reef-encircled islands. Geol. Soc. Am., Bull. 29, 1918: 572-574. (66 entries. 1875-1917. General.)
- 816 MOSCHELES, J. Die Darwinsche Rifftheorie im Lichte geomorphologischen Forschung. Geol. Rundsch., 11, 1920: 103-104. (34 entries. 1862-1919. General.)
- 817 WOOD-JONES, F. Coral and atolls: a history and description of the Keeling-Cocos Islands, with an account of their fauna and flora, and a discussion of the method of development and transformation of coral structures in general. London, 1912, 392pp. (Bibl., 381-383. 45 entries. 1869-1909. General.)
See 1225.
- CORALS.**
- 818 ANDERSON, G. E. Studies in the development of certain Paleozoic corals. Journ. Geol., 15, 1907: 69. (27 entries. 1820-87. General.)
- 819 BROWN, T. C. Studies on the morphology and development of certain rugose corals. N. Y. Acad. Sci., Ann. 19-I, 1909: 96-97. (41 entries. 1843-1907. General.)
- 820 DUERDEN, J. E. Studies of the morphology, physiology, and the development of recent and fossil corals with bibliography. Mich. Acad. Sci., Bull. 2, no. 1, 1904: 4. (13 entries. 1902-05. General.)
- 821 FAURE-MARGUERIT, G. Monographie paléontologique des assises coralligènes du promontoire de l'Echaillon (Isère). Grenoble, Univ. Ann. 32, 1920: 287-292. (108 entries. 1812-1916. General.)
- 822 GERTH, H. Anthozoen von Java und die Mollusken der Njalindungsschichten. Leiden. Geol. R. Mus., Samml. n. f. 1, 2 abth. hft. 3, 1921: 441-443. (117 entries. 1840-1921. General.)
- 822a GORDON, C. E. Studies on early stages in Paleozoic Corals. Am. Journ. Sci., 5th ser., 21, 1906: 127. (13 entries. 1869-1905. General.)
- 823 GREGORY, J. W. Thomson's genera of Scottish carboniferous corals. Geol. Soc. Glasgow, Trans. 16, 1916-17: 240-243. Glasgow Univ. Geol. Dept., Papers 4, no. 2, 1917: 240-243. (49 entries. 1867-1913. Regional.)
- 824 GREGORY, J. W., and TRENCH, J. B. Eocene corals from the Fly River, central New Guinea. Geol. Mag., n. s. (vi), 3, 1916: 534-536. Glasgow Univ. Geol. Dept. Papers 3, no. 7, 1916: 534-536. (48 entries. 1847-1916. General.)
- 825 GROSCH, P. Phylogenetische Korallenstudien. (Die Axophylliden.) Deutsch. geol. Gesell., Zeit. 61, 1909: 32-34. (38 entries. 1848-1907. General.)
- 826 LEBEDEW, N. Die Bedeutung der Korallen in den devonischen Ablagerungen Russlands. St. Petersburg, 1902, 180pp. Russia. Com. géol., Mém. 17, no. 2. ([Literature], 6-11. 108 entries. 1835-1901. Regional.)
- 827 LEMOINE, Madame PAUL. Contribution à l'étude des corallinacées fossiles. Soc. géol. France, Bull. 4th ser. 17, 1917: 252-256. (75 entries. 1840-1916. General.)
- 828 RICHTER, RUDOLF. Zur stratigraphischen Beurteilung von Calceola (Calceola sandalina Lam. n. mut. lata und alta). N. J. f. Min., 1916-II: 44. (24 entries. 1801-1913. General.)
- 829 SALÉE, ACHILLE. Contribution à l'étude des polypiers du calcaire carbonifère de la Belgique. Le genre Caninia. Soc. belge géol., Brux., Nouv. mem. 3, 1910: 9-12. (57 entries. 1876-1910. General.)
- 830 SALÉE, ACHILLE. Contribution à l'étude des polypiers du calcaire carbonifère de la Belgique. II. Le Groupe des Clisiophyllides. Louvain, Univ. Inst. géol., Mém. 1, 1913: 277-290. (102 entries. 1841-1913. General.)
- 831 SPEYER, CARL. Die Korallen des Kelheimer Jura. Palaeontographica, 59, 1913: 194-196. (52 entries. 1848-1910. General.)
- 832 TRAUTH, FRIEDRICH. Die oberkretazische Korallenfauna von Klagsdorf in Mähren. Brunn,

- 1911, 104pp. (Literature, 99-103. 55 entries. 1840-1910. General.)
- 833 VAUGHAN, T. W. A critical review of the literature on the simple genera of the Madreporaria Fungida, with a tentative classification. U. S. Nat. Mus., Proc. 28, 1905: 421-424. (84 entries. 1750-1898. General.)
- 834 VAUGHAN, T. W. The Eocene and lower Oligocene coral faunas of the United States, with descriptions of a few doubtfully Cretaceous species. Washington, 1900, 205pp. U. S. Geol. Surv., Mon. 39. (Bibl., 201-205. 83 entries. 1801-99. General.)
- 835 VAUGHAN, T. W. A list of papers on the recent and fossil stony corals and coral reefs of the West Indies, Florida, the Bermudas, the western shores of the Gulf of Mexico and northeastern South America. Leiden. Geol. R. Mus., Samml. 2d ser. 2, hft. 1, 1901: 78-91. (230 entries. 1856-1900. Regional.)
- 836 VINASSA DE REGNY, P. Coralli mesodevonicici della Carnia. Palaeont. ital., 24, 1918: 67-68. (29 entries. 1877-1914. General.)
- 837 YABE, H., and HAYASAKA, I. Palaeozoic corals from Japan, Korea and China. Geol. Soc. Tokyo, Journ. 22, no. 261, 1915: 69(15)-70(16); no. 263, 1915: 91(29)-92(30); no. 265, 1915: 140(62)-142(64). 88 entries. 1851-1912. Regional.)
See 461, 1393, 1484.
- CORBIÈRES MOUNTAINS.**
- 838 DONCIEUX, LOUIS. Monographie géologique et paléontologique des Corbières orientales. Lyon, 1903, 403pp. Lyon., Univ. Ann. n. s. I. fasc. 11. (Bibl., 13-22. 211 entries. 1737-1902. Regional. Author's thesis, University of Lyon, 1903.)
- CORDIERITE.**
- 839 TEALL, J. J. H. The natural history of cordierite and its associates. Geol. Assoc., Proc. 16, 1899-1900: 74. (19 entries. 1884-98. General.)
- CORDILLERAS.** See 266, 2222.
- CORNWALL.** See 1021a, 1022a, 1030.
- CORUNDUM.**
- 840 BARLOW, A. E. Corundum, its occurrence, distribution, exploitation, and uses. Ottawa, 1915, 377 pp. Canada Geol. Surv., Mem. 57. Geol. ser. 50. (Bibl., 317-324. 68 entries. 1897-1913. General.)
- 841 HALL, A. L. Corundum in the northern and eastern Transvaal. Pretoria, 1920, 223 pp. Union S. Afr. Geol. Surv., Mem. 15. (Bibl., 209. 19 entries. 1898-1919. Regional.)
- 842 HOLLAND, T. H. Corundum. Calcutta, 1898, 79 pp. In Ball, V. A manual of the geology of India. Economic geology. 2d. ed. rev. Part I.—Corundum. (Literature, 62-65. 59 entries. 1798-1897. Regional.)
- 843 LEWIS, J. V. Corundum and the basic magnesian rocks of western North Carolina. Winston, 1896, 107 pp. N. C. Geol. Surv., Bull. 11. (Literature, 99-101. 60 entries. 1822-95. General.)
- 844 PRATT, J. H. Corundum and its occurrence and distribution in the United States. (A revised and enlarged edition of Bulletin No. 180). Washington, 1906, 175 pp. U. S. Geol. Surv., Bull. 269. (Review of literature, 76-79. 18 entries. 1850-1902. Foot notes.)
- 845 PRATT, J. H., and LEWIS, J. V. Corundum and the peridotites of western North Carolina. Raleigh, 1905, 464 pp. N. C. Geol. Surv., Vol. I. (Bibl., 401-420. 393 entries. 1813-1913. General.)
- CRETACEOUS.**
- 846 ANDERSON, F. M. Cretaceous deposits of the Pacific coast. Cal. Acad. Sci., Proc. 3d ser. 2, no. 1, 1902: 127-129. (47 entries. 1856-1901. Regional.)
- 847 [ARCHANGELSKIJ, A. D.] [Le crétacé supérieur de la Russie d'Europe orientale]. In Russian. Matér. géol. Russ., 25, 1912: 569-577. (118 entries. 1852-1909. General.)
- 848 BAUMBERGER, ERNST. Fauna der unteren Kreide im westschweizerischen Jura. I. teil. Zürich, 1903, 60 pp. (Literature, 57-60. 88 entries. 1830-1903. Regional. Supplement to above in Vol. 36, 1909-1910: [54], 17 entries. 1895-1908.)
- 849 BAUMBERGER, E. Fauna der unteren Kreide im westschweizerischen Jura. 6e teil. Zürich, 1910, 55 pp. Schw. palaeont. Gesell., Abh. 36. (Literature, 50-55. 106 entries. 1840-1910. Regional.)
- 849a *BAUMBERGER, E. Über facies und Transgressionen der untern Kriede am Nordrande der mediterrano-

*Not seen.

- helvetischen Bucht im westlichen Jura. Wissenschaftliche Beilage zum Bericht der Tochterschule zu Basel, 1900-1901: 40-44. (150 entries. 1835-1901.)
- 850 BLANCHET, FERNAND. Étude micrographique des calcaires Urgoniens. Grenoble, Univ., Ann. 29, 1917: 390. (13 entries. 1850-1915. General.)
- 850a BRÜGGEN, HANS. Die Fauna des unteren Senons von Nord-Perú. N. J. f. Min., B. B. 30, 1910: 717-719. (41 entries. 1852-1907. General.)
- 851 GERHARDT, K. Beitrag zur Kenntnis der Kreideformation in Venezuela und Peru. (Beiträge zur Geologie und Palaeontologie von Südamerika. V.) N. J. f. Min., B. B. 11, 1897-98: 66-68. (39 entries. 1839-94. Regional.)
- 852 GOULD, C. N. The Dakota Cretaceous of Kansas and Nebraska. Kansas Acad. Sci., Trans. 17, 1901: 168-178. (198 entries. 1804-1900. Regional.)
- 853 HAUPT, OSKAR. Beiträge zur Fauna des oberen Malm und der unteren Kreide in der argentinischen Cordillere. N. J. f. Min., B. B. 23, 1907: 231-236. (113 entries 1836-1903. General.)
- 854 KNOWLTON, F. H. A catalogue of the Cretaceous and Tertiary plants of North America. Washington, 1898, 247 pp. (Bibl., 13-23. 152 entries. 1857-97. Regional.)
- 854a KILIAN, W. Unterkreide. (Palaeocretacium) Erst Lieferung. Lethaea geognostica. II. 3. Abt. 1, 1907-13: 133-54. (531 entries. 1760-1907. General.)
- 855 KRYSHTOFOVICH, A. On the Cretaceous flora of Russian Sakhalin. Tokyo Imp. Univ., Coll. Sci., Journ. 40, art. 8, 1918: 63-72. (135 entries. 1814-1916. General.)
- 856 SEWARD, A. C. A contribution to our knowledge of Wealden floras, with especial reference to a collection of plants from Sussex. Geol. Soc. London, Q. J., 69, 1913: 112-115. (85 entries. 1824-1912. General.)
- 857 SEWARD, A. C. La Flore wealdienne de Bernissart. Bruxelles, 1900, 37 pp. Mus. hist. nat. Belg., Mém. 1. (Bibl., 35-37. 54 entries. 1824-99. Regional.)
- 858 STANTON, T. W. A comparative study of the Lower Cretaceous formations and faunas of the United States. Journ. Geol., 5, 1897: 610-624. (234 entries. 1823-97. General.)
- 859 STEPHENSON, L. W. The Cretaceous-Eocene contact in the Atlantic and Gulf Coastal Plain. U. S. Geol. Surv., Prof. Paper, 90, 1915: 181-182. (31 entries. 1860-1915. Regional.)
- 860 STOPES, M. C., and FUJII, K. Studies on the structure and affinities of Cretaceous plants. Roy. Soc. Lond., Phil. Trans. B. 201, 1910: 79-81. (43 entries. 1874-1909. General.)
- 861 WILCKENS, OTTO. Die Anneliden, Bivalven und Gastropoden der antarktischen Kreideformation. Stockholm, 1910, 132 pp. Schwed. Südpolar Exp. 1901-03. Wissenschaft. Ergeb. 3, lief. 12. (Literature, 119-123. 90 entries. 1812-1907. General.)
- See 100, 108, 164, 209, 210, 213, 216, 218, 222, 226, 264, 266, 272a, 328, 331, 338, 370, 396, 477, 490, 549, 638, 662, 666, 671, 783, 785, 832, 834, 862, 909, 910, 911, 933, 977, 990, 1035, 1069, 1125, 1137, 1198, 1228, 1230, 1231, 1275, 1334, 1343, 1344, 1433, 1484, 1485, 1496, 1535, 1556, 1612, 1655, 1656, 1684, 1707, 1708, 1711, 1712, 1789, 1790, 1792, 1796, 2071, 2075, 2093, 2105, 2121, 2143, 2185, 2186, 2208, 2230, 2234, 2247, 2251, 2252, 2360, 2361, 2394, 2477, 2480, 2521, 2577, 2582, 2596, 2612, 2615, 2665, 2666, 2672a, 2741, 2769, 2792, 2808, 2815.
- CRETE. See 398.
- CRINOIDEA.
- 862 NIELSEN, K. B. Crinoiderne i Danmarks kridtaflejringer. København, 1913, 112 pp. (Literature, 110-112. 53 entries. 1821-1913. General.)
- 863 SPRINGER, FRANK. The Crinoidea Flexibilia. Washington, 1920, 486 pp. Smith. Inst., Pub. 2501. (Bibl., 455-466. 250 entries. 1699-1909. General.)
- 864 WELLER, STUART. The paleontology of the Niagaran limestone in the Chicago area. The Crinoidea. Chicago Acad. Sci., Bull. 4-I, 1900: 57-60. (69 entries. 1852-98. General.)
- 864a WILSON, H. E. Evolution of the basal plates in monocyclic Crinoidea camerata. Journ. Geol., 24, 1916: 682-684. (40 entries. 1852-1915. General. Also issued as

- thesis, University of Chicago, 1913.)
- 865 WOOD, ELVIRA. A critical summary of Troost's unpublished manuscript on the crinoids of Tennessee. Washington, 1909, 115 pp. U. S. Nat. Mus., Bull. 64. (Literature, 113-115. 49 entries. 1821-1905. General.)
- CROCODILES.**
- 866 MCGREGOR, J. H. The *Phytosauria*, with especial reference to *Mystriosuchus* and *Rhytidodon*. Am. Mus. Nat. Hist., Mem. 9-II, 1905: 97-100. (76 entries. 1842-1904. General.)
- CRUSTACEA.**
- 867 ALESSANDRI, G. DE. Studi monografici sui cirripedi fossili d'Italia. Palaeont. ital., 12, 1906: 207-212. (158 entries. 1670-1905. General.)
- 868 BALSS, HEINRICH. Ueber fossile Galatheiden. Centralbl. f. Min., 1913: 159-160. (14 entries. 1856-1907. General.)
- 869 BÖHM, JOHANNES. *Callianassa Burckhardtii* n. sp. nebst einer Zusammenstellung der fossilen Arten der Gattung *Callianassa*. Deutsch. geol. Gesell., Zeit. 63, 1911: Monatsb. 44-46. (74 entries. 1852-1908. General.)
- 870 ROGERS, A. F. Some new American species of *Cyclus* from the Coal Measures. Kansas Univ. Sci. Bull. 1, no. 10, 1902: 275. Columbia Univ. Dept. Geol., Contr. 10, no. 88. (17 entries. n. d. General.)
- 871 TOULA, FRANZ. Über eine neue Krabbe (*Cancer Bittneri* n. sp.) aus dem miocänen Sandsteine von Kalksburg bei Wien. Austria, Geol. Reichsanst., Jahrb. 54, 1904: 166-168. (15 entries. 1847-1901. Regional.)
- 872 VOGDES, A. W. Paleozoic Crustacea; the publications and notes on the genera and species during the past twenty years, 1895-1917. San Diego Soc. Nat. Hist., Trans. 3, 1917: 1-141. (ca 705 entries. 1895-1917. General.)
- CRYOLITE.** See 1133.
- CRYSTALLINE SCHISTS.**
- 873 GRUBENMANN, U. Die kristallinen Schiefer. I. Berlin, 1904: 102-105. (80 entries. 1871-1903. General.)
- 873a GRUBENMANN, U. Die kristallinen Schiefer, eine Darstellung der Erscheinungen der Gesteinsmetamorphose und ihre Produkte. 2. Aufl. 1910, 298 pp. (Literaturverzeichnis, p 290-298. 270 entries. 1806-1910. General.)
- 873b GRUBENMANN, U. Struktur und Textur der metamorphischen Gesteine. Fortschr. Min. Krist. Petrogr., 2, 1912: 208-209. (35 entries. 1847-1912. General.)
- 874 GRUBENMANN, U. Zur Klassifikation der metamorphen Gesteine. Fortschr. Min. Krist. Petrogr., 3, 1913: 228-229. (18 entries. 1906-12. General.)
- 875 LINDEMANN, BERNHARD. Ueber einige wichtige Vorkommnisse von körnigen Carbonatgesteinen mit besonderer Berücksichtigung ihrer Entstehung und Structur. N. J. f. Min., B. B. 19, 1904: 197-204. (154 entries. 1833-1903. General.)
- 876 MILCH, L. Die heutigen Ansichten über Wesen und Entstehung der kristallinen Schiefer. Geol. Rundsch., 1, 1910: 56-58. (33 entries. 1867-1907. General.)
- 877 MRAZEC, L. Sur les schistes cristallins des Carpathes méridionales [versant roumain]. Int. Geol. Cong., IX. Vienne, 1903. C. R.: 631-632. (21 entries. 1893-1900. Regional.)
See 2231, 2617, 2903.
- CRYSTALLOGRAPHY.**
- 878 BAUMHAUER, H. Geometrische Kristallographie. Fortschr. Min. Krist. Petrogr., 1, 1911: 21-22. (19 entries. 1909-10. General.)
- 879 BECKE, F. Über die Ausbildung der Zwillingkristalle. Fortschr. Min. Krist. Petrogr., 1, 1911: 84-85. (27 entries. 1829-1910. General.)
See 82, 93, 564, 565, 566, 1247, 2533, 2689, 2917.
- CRYSTALS, STRUCTURE OF**
- 880 TERTSCH, H. Neuere Studien über Kristalltrachten. Fortschr. Min. Krist. Petrogr., 2, 1912: 41-43. (52 entries. 1896-1911. General.)
See 567.
- CUBA.**
- 881 LINDGREN, WALDEMAR, and ROSS, C. P. The iron deposits of Daiquiri, Cuba. Am. Inst. M. E., Trans. 53, 1916: 59. (6 entries. 1884-1908. Regional.)
- 882 LITTLE, J. E. Cuban iron mines and methods. Pan-Am. Sci. Cong. Wash., D. C., Proc. 2d, Sect. VII, 1917: 281. (22 entries. 1884-1915. Regional.)
- 882a *ORTEGA, PABLO, and HUERTA, SANTIAGO DE LA. El carbón de piedra, el petróleo, el asfalto, los betunes, y el gas natural de Cuba. Cuba.

*Not seen.

- Sec. Agri. Bol. de Minas. Bibl. no. 1, 1919, 23 pp.
- 883 ROESLER, MAX. Geology of the iron-ore deposits of the Firmeza District, Oriente Province, Cuba. Am. Inst. M. E., Trans. 56, 1917: 127. (10 entries. 1884-1916. Regional.)
- 884 ROIG, M. S. Escualidos del mioceno y plioceno de la Habana. Cuba. Sec. agri., Bol. de minas, 6, 1920: 14-16. (32 entries. 1827-1918. Regional.)
- 885 ROIG, M. S. La fauna jurásica de Viñales. Habana, 1920, 61 pp. Cuba. Sec. agri., Bol. esp. (Bibl., 57-61. 47 entries. 1858-1918. Regional.)
See 2048.
- CYCADS.**
- 886 SEWARD, A. C. A petrified Williamsonia from Scotland. Roy. Soc. Lond. Phil. Trans., B. 230, 1912: 122-123. (32 entries. 1857-1911. General.)
- 887 WIELAND, G. R. American fossil cycads. 2 vols. Washington, 1906-1916. Carnegie Inst., Wash., Pub. 34. (Bibl. vol. 2: 239-248. 427 entries. 1773-1914. General. Bibliography in Vol. 1, p. 249-256 is included in that of Vol. 2.)
- 888 WIELAND, G. R. On the Williamsonian tribe. Am. Journ. Sci., 4th ser., 32, 1911: 465-466. (28 entries. 1834-1911. General.)
- 889 WIELAND, G. R. A study of some American fossil cycads. Part I. Am. Journ. Sci., 4th ser., 7, 1899: 225-226. (28 entries. 1845-98. General.)
- CYPRESS.** See 398, 1641.
- CZECHO-SLOVAKIA.**
- 890 BLASCHKE, FRIEDRICH. Zur Tithonfauna von Stramberg in Mähren. Naturh. Hofmus., Wien., Ann. 25, 1911: 145-147. (82 entries. 1845-1910. Regional.)
- 890a GESELL, SÁNDOR. Die geologischen Verhältnisse des Petroleumvorkommens in der Gegend von Luh im Ungthale. Budapest, 1900, 15pp. Hungary. Geol. Anst., Mitth. 12, hft. 4. (Literatur, 10-15. 6 entries. 1869-95. Regional.)
- 891 JAFFÉ, RICHARD. Die Uranpecherz-lagerstätten des Sächsischen Edelleutstollen bei St. Joachimsthal. Zeit. f. prak. Geol., 20, 1912: 425-426. (46 entries. 1562-1912. Regional.)
- 892 LAUS, HEINRICH. Die mineralogisch-geologische und prähistorische Literatur Mährens und Oester [reichisch] Schlesiens von 1897-1904. Mähr. Landesmus. Brünn, Zeit. 5, 1905: 105-136. (476 entries. 1897-1904. Regional.)
- 893 *LAUS, HEINRICH. Die naturwissenschaftliche Literatur über Mähren und Oesterr.-Schlesien von 1901 bis 1910 nebst Nachträgen. Mähr. Landesmus. Brünn, Zeit. 10, 1910: 233-271.
- 894 NEUMANN, JOH. Die Oxfordfauna von Cetechowitz. Beitr. Paläont. Oesterr.-Ung., 20, 1907: 1-3. (88 entries. 1813-1905. General.)
- 895 RIMANN, EBERHARD. Der geologische Bau des Isergebirges und seines nördlichen Vorlandes. Prussia. Geol. Landesanst., Jahrb. 31-I, 1913: 529-533. (65 entries. 1813-1909. Regional.)
See 172, 342, 346, 356, 359, 374, 375, 376, 387, 468, 469, 472, 474, 1684, 2458.
- DACITE.** See 2145.
- DALMATIA.** See JUGO SLAVIA.
- DANUBE.** See 898.
- DARDANELLES.**
- 896 ENGLISH, THOMAS. Eocene and later formations surrounding the Dardanelles. Geol. Soc. London, Q. J. 60, 1904: 274-275. (30 entries. 1858-1902. Regional.)
- DATOLITE.**
- 897 GÖRGEY, R., and GOLDSCHMIDT, V. Über Datolith. Zeit. f. Kryst., 48, 1911: 619-621. (68 entries. 1810-1909. General.)
- DEEP WELLS.** See BORINGS.
- DELAWARE.** See 330.
- DELTAS.**
- 898 ANTIPA, GR. Wissenschaftliche und wirtschaftliche Probleme des Donaudeltas. Rumania. Inst. Geol., An. 7, 1913 (1917): 86-88. (49 entries. 1828-1914. General.)
See 1838, 2563.
- DENMARK.**
- 899 FUNKQUIST, H. P. A. Asaphus-regionens omfattning i sydöstra Skåne och på Bornholm. Lund, 1919, 56 pp. Lunds geol. fältk., Meddel. B. 11. Lunds Univ. årssk., n. f. Avd. 2, 16, no. 1. (Literature, 51-55. 118 entries. 1772-1916. Regional.)
- 900 GRÖNWALL, K. A., and HARDER, POUL. Paleocaen ved Rugaard i Jdyland og dets fauna. Kjøbenhavn, 1907, 102 pp. Denmark. Geol. undersøg. II. Raekke, 18.

*Not seen.

- (Literature, vii-viii. 36 entries. 1843-1907. Regional.)
- 901 GRÖNWALL, K. A., and MILTHERS, V. Beskrivelse til geologisk kort over Denmark. (i maalestok 1: 100,000). Kortbladet Bornholm. Kjøbenhavn, 1916, 281 pp. Denmark. Geol. undersøg., I. Raekke, 13. (Literature, 251-258. 203 entries. 1756-1915. Regional.)
- 902 HADDING, ASSAR. Der mittlere dcellograptusschiefer auf Bornholm. Lund, 1915, 39 pp. Lunds geol. fältkl., Meddel. B. 8. (Literature, 38-39. 23 entries. 1852-1913. General.)
- 903 HARTZ, N. Allerød-Gytje und Allerød-Mull. Dansk geol. foren., Meddel. 4, 1912-1915: 91-92. (12 entries. 1829-1910. Regional.)
- 904 HARTZ, N. Allerød-Muld: Allerød Gytjen Landfacies. Dansk geol. foren., Meddel. 4, 1912-15: 68. (11 entries. 1829-1910. Regional.)
- 905 JÖRGENSEN, S. M. Mineralogi og geologi. [Oversigt over Litteraturen.] Suppleret af N. V. Ussing. In Hansen, P. Illustreret dansk Litteraturhistorie 2 ed. III. Kjøbenhavn, 1902: 1115-1120. (9 entries. 1757-1897. Regional.)
- 906 KRANZ, W. Hohe Strandlinien auf Bornholm. Deutsch. geol. Gesell., Zeit. 63, 1911, Monatsb.: 47-77. (90 entries. 1837-1910. Footnotes.)
- 907 LITTERATURFORTEGNELSE. Dansk geol. foren., Meddel. 1901-04, no. 10, 1904: 121-132, 200 entries; 1901-05, no. 11, 1905: 123-128, 79 entries; 1901-06, no. 12, 1906: 71-78, 122 entries; 1901-07, no. 13, 1907: 127-132, 89 entries; 1903-08, no. 14, 1908: 265-270, 90 entries; 1902-09, no. 16, 1910: 499-502, 69 entries; 1906-10, no. 17, 1911: 635-640, 112 entries; 1901-14, v. 4, 1912-15: I-XX, 339 entries. (1100 entries. 1901-. Regional.)
- 908 MILTHERS, V. Bornholms geologi. Kjøbenhavn, 1916, 122 pp. Denmark. Geol. undersøg., V. Raekke, 1. Literature, 112-114. (31 entries. 1819-1916. Regional.)
- 909 NIELSEN, K. B. Om det i københavns Havn ved Knippelsbro fundne Yngste Danien. Dansk geol. foren., Meddel. 16, 1910: Regional.)
- 910 RAVN, J. P. J. Kridtfaejringerne paa Bornholms sydveskyst og deres fauna. I. Turonet. Kjøbenhavn, 1918, [39] pp. Denmark. Geol. undersøg., II. Raekke. 31. (Literature, 36-37. 29 entries. 1804-1916. Regional.)
- 911 SKEAT, E. G., and MADSEN, VICTOR. On Jurassic, Neocomian and Gault boulders found in Denmark. Kjøbenhavn, 1898, 213 pp. Denmark. Geol. undersøg., II. Raekke. 8. (Works, 200-210. 111 entries. 1821-96. Regional.)
- 912 USSING, N. V. Dänemark. Heidelberg, 1910, 38 pp. Handb. reg. Geol., 1 hft., 1. 2. (Literature, 35-37. 83 entries. 1874-1909. Regional.)
- 913 WIMAN, CARL. Über die Borkholmer Schicht im Mittelbaltischen Silurgebiet. Upsala, Univ. Bull. Geol. Inst., 5, pt. 2, 1901: 213-217. (63 entries. 1852-1900. Regional.)
See 496, 607, 862, 1244, 1317, 1610, 2404.
See also SCANDINAVIA; SCHLESWIG-HOLSTEIN.
- DESERTS.** See 574, 797, 798, 799.
- DEVITRIFICATION.** See 2126.
- DEVONIAN.**
- 914 CLARKE, J. M. Fosseis devonianos do Paraná. Rio de Janeiro, 1913, 353 pp. Brazil. Serv. geol., Mon. 1. (Bibl., 32-35. 57 entries. 1842-1909. Regional.)
- 914a CLAYPOLE, EDWARD. The Devonian era in the Ohio basin. Am. Geol., 32, 1903: 15-16. (31 entries. 1877-95. Regional.)
- 915 HALLE, T. G. Lower Devonian plants from Røragen in Norway. Stockholm, 1916, 46 pp. Sven. Vetenskap. Handl. 57, no. 1. (Bibl., 41-43. 110 entries. 1850-1914. General.)
- 916 HARTZELL, J. C. Das Oberdevon Europas und Nordamerikas. Inaugural-dissertation. München., 1904, 73 pp. (Literatur, 68-73. 124 entries. 1840-1903. Regional.)
- 917 JOHNSON, THOMAS. Spermolithus devonicus gen. et sp. nov., and other pteridosperms from the Devonian beds at Kiltorcan, Co. Kilkenny. Roy. Dub. Soc., Sci. proc., 15 (n. s.) 1917: 252. (15 entries. 1853-1912. General.)
- 918 NATHORST, A. G. Zur Devonflora des westlichen Norwegens. Bergens Mus. Aarb. 1914-15, 9. 30-31. (34 entries. 1858-1913: General.)
- 919 WILLIAMS, H. S. The correlation of geological faunas. A contri-

bution to Devonian paleontology. Washington, 1903, 147 pp. U. S. Geol. Surv., Bull. 210. (Bibl., 135-139. 94 entries. 1883-1902. General.)

See 214, 357, 449, 511, 826, 836, 984, 1108, 1118, 1121, 1122, 1234, 1281, 1334, 1364, 1593, 1662a, 1879, 1904, 1907, 2033, 2034, 2232, 2252, 2369, 2656, 2676, 2718a, 2891, 2895.

DIABASE. See 2145, 2250.

DIAMONDS.

920 COTTON, L. A. The diamond-deposits of Copeton, New South Wales. Linnean Soc. N. S. W., Proc. 39, 1914: 837-838. (13 entries. 1875-1911. Regional.)

921 FERSMANN, A. VON, and GOLDSCHMIDT, V. Der Diamant. Heidelberg, 1911, 274 pp. (Literature, 42-58. 402 entries. 1546-1909. General.)

922 JULIEN, A. A. A bibliography of the diamond fields of South Africa. Econ. Geol., 4, 1909: 453-469. (286 entries. 1869-1908. Regional.)

923 SCHEURING, G. Die mineralogische Zusammensetzung der deutsch-südwest-afrikanischen Diamant-sande. Berlin, 1914, [49] pp. Beitr. geol. Erfors. Deuts. Schutz., 8. (Literature, 8. 14 entries. 1909-13. Regional.)

924 STUTZER, O. Neuere Arbeiten über Diamantlagerstätten. (1911 bis Anfang 1914). Geol. Rundsch., 6, 1915: 23. (16 entries. 1911-14. General.)

925 VOIT, E. W. Übersicht über die nutzbaren Lagerstätten Südafrikas. Zeit. f. prakt. Geol., 16, 1908: 194. (13 entries. 1904-07. Regional.)

See 2501.

DIATOMACEOUS EARTH. See 94.

DIFFUSION.

926 STANFIELD, JOHN. Retarded diffusion and rhythmic precipitation. McGill Univ., Papers Dept. Geol., n. s. 1, 1917:26. Am. Journ. Sci., 4th ser. 43, 1917: 26. (11 entries. 1898-1916. General.)

DINOSAURIA.

927 ABEL, O. Die Rekonstruktion des *Diplodocus*. Zool.-bot. Gesell. Wien, Abh., 5, hft. 3, 1910: 58-59. (44 entries. 1878-1910. General.)

928 HATCHER, J. B. *Diplodocus* (Marsh): its osteology, taxonomy,

and probable habits, with a restoration of the skeleton. Carnegie Mus. Pittsburgh, Mem. 1, 1901-04: 61. (9 entries. 1878-1900. General.)

929 HENNIG, E. Stegosauria. Berlin, 1915, 15 pp. Fossilium catalogus. I: Animalia. Pars 9. (Literature, 3-9. 87 entries. 1832-1915. General.)

930 HUENE, F. v. Die Dinosaurier der Europäischen Triasformation. Geol. u. paläont. Abh., Suppl. 1, 1907-1908: 409-418. (368 entries 1820-1908. Regional.)

931 HUENE, F. v. Saurischis et Ornithischia triadica ("Dinosauria" triadica). Berlin, 1914, 21 pp. Fossilium catalogus. I: Animalia. Pars 4. (Literature, 3-10. 148 entries. 1820-1914. General.)

932 HUENE, F. v. Ueber die Dinosaurier der aussereuropäischen Trias. Geol. u. paläont. Abh., n. f. 8, hft. 2, 1906: 59-60. (38 entries. 1820-1905. Regional.)

933 LAMBE, L. M. On *Dryptosaurus incassatus* (Cope), from the Edmonton series of the Northwest Territory. Canada, Geol. Surv., Cont. Can. Palaeont., 3, pt. 3, 1904: 27. (5 entries. 1892-1903. General.)

934 LULL, R. S. Dinosaurian distribution. Am. Journ. Sci., 4th ser., 29, 1910: 38-39. (53 entries. 1891-1910. General.)

935 MATTHEW, W. D. Dinosaurs with special reference to the American museum collections. N. Y., 1915, 162 pp. (Ref., 160-162. 45 entries. 1859-1914. General.)

936 NOPCSA, F. B. Über Dinosaurier. Centralb. f. Min., 1917: 345-348. (87 entries. 1864-1914. General.)

937 OSBORN, H. F. Reconsideration of the evidence for a common dinosaur-avian stem in the Permian. Am. Nat., 34, 1900: 797-799. (41 entries. 1863-1900: General.)

DIORITE. See 1159, 2145.

DIPYRE. See SCAPOLITE.

DIVINING ROD.

938 ELLIS, A. J. The divining rod. A history of water witching with a bibliography. Washington, 1917, 59 pp. U. S. Geol. Surv., Water-supply Paper 416. (Bibl., 26-53. 571 entries. 15--1916. General.)

938a *KLINCKOWSTROEM, C. L. F. O. Bibliographie der Wünschelrute; mit einer Einleitung von dr. Ed. Aigner. Der gegenwärtige Stand

*Not seen.

- der Wüschelruten - forschung. München, 1911, 146 pp.
- DOLOMITIZATION.**
- 939 BEHR, F. M. Über Dolomitisierung und Verquarzung in Kalken des Mitteldevons und Karbons am Nordrande des Rheinischen Schiefergebirges. Deutsch. geol. Gesell., Zeit. 67, 1915: 3-5. (49 entries. 1824-1913. General.)
- DREIKANTER.**
- 940 WITTICH, E. Über Dreikanter aus der Umgegend von Frankfurt. Senckenb. naturf. Gesell., Ber. 1898, II: 18-189. (34 entries. 1865-95. Regional.)
- DRIFTLESS AREA.**
- 941 SHIPTON, W. S. Bibliography of the Driftless Area. Iowa Acad. Sci., Proc. 24, 1917: 67-81. (253 entries. 1682-1916. Regional.)
- DRUMLINS.**
- 942 FAIRCHILD, H. L. Drumlins of central western New York. Albany, 1907. N. Y. State Mus., Bull. 111. (Bibl. 436-439. 90 entries. 1815-1906. General.)
- DUMORTIERITE.**
- 943 SCHALLER, W. T. Dumortierite. U. S. Geol. Surv., Bull. 265, 1905: 119-120. (15 entries. 1880-1902. General.)
- DUNES.**
- 944 COCKAYNE, L. Report on the dune-areas of New Zealand, their geology, botany, and reclamation. Wellington, 1911, 76 pp. N. Z. Dept. Lands. C-13. (Works, 71-74. 140 entries. 1867-1911. General and Regional.)
See 2436.
- DUTCH EAST INDIES.**
- 945 BROUWER, H. A. Geologisch overzicht van het oostelijk gedeelte van den Oost-Indischen archipel: stratigrafie, tektoniek, vulkanisma. Jaarb. Mijnw. Ned. O-Ind., Verh. 46, 1917. Verh. 2:147-162. (193 entries. 1864-1916. Regional.)
- 946 PANNEKOEK, J. J. Einige Notizen über die Vulkane auf der Insel Flores (Niederländisch Ost-Indien). Zeit. f. Vulkan., 5, 1910: 112-113. (15 entries. 1876-1918. Regional.)
- 947 VAN ES, L. J. C. De tektoniek van de westelijke helft van den Oost-Indischen Archipel. Jaarb. Mijnw. Ned. O-Ind., 46, 1917. Verh. 2: 7-14. (105 entries. 1840-1915. Regional.)
- 948 VERBEEK, R. D. M. Opgave van geschriften over geologie en mijnbouw van Nederlandsch Oost-Indië. Geol.-mijn. Genoots. v. Neder. en Kol., Verh. Geol. ser. I, 1912-1915: 31-248, 293-318, 361-376: II, 1914-17: 145-163, 165-182. (3182 entries. 1757-1917. Regional.)
- 949 VERBEEK, R. D. M. 5^e Vervolg op de opgave van geschriften over de geologie, mineralogie, topographie en mijnbouw van Nederlandsch Oost-Indië. Jaarb. Mijnw. Ned. O-Ind., 32, 1903: 148-169. (Nos. 299-451. 1857-1902. Regional.)
- 950 VERBEEK, R. D. M. Zesde vervolg op de opgave van geschriften over de geologie. . . . Jaarb. Mijnw. Ned. O-Ind., 38, 1910: 335-353. (Nos. 452-572. 1849-1909. Regional.)
See 962, 976, 1145, 1794, 2678, 2759.
See also TIMOR.
- DUTCH GUIANA.**
- 950a DU BOIS, G. C. Geologisch-bergmännische Skizzen aus Surinam. Das Prospectieren auf Goldseifen und die Abbaumethoden goldhaltiger Seifen. Freiberg in Sachsen, 1901, 104 pp. (Literatur, 103-104.)
- 950b *VERLOOP, J. H. A brief outline of the Surinam gold industry. Geology, technique, hygiene. Description of the gold placer and the prospects at the Guiana gold placer. Amsterdam, 1911, 106 pp. (Literature, 103-106.)
See also 2476.
- DYAS. See PERMIAN.**
- EARTHQUAKES.**
- 951 *AGAMENNONE, G. Bibliografia generale dei Terremoti. Soc. seism. ital., Boll. 22, 1919: 267-71.
- 951a *ANGELIS D'OSSAT, G. DE, and PACCHIONI, ALBERTO. Appunti bibliografici di Edilizia sismica [in appendice alla relazione generale della commissione di edilizia sismica nominata in seno alla Società degli ingegneri e degli architetti italiani]. Soc. ing. ital., Ann. 24, 1909: 205-217, 502-517.
- 952 BARATTA, MARIO. La catastrofe sismica Calabro Messinese (28 Dicembre 1908). Roma, 1910, 426pp. (Bibl., 424-426. 29 entries. 1909. Regional.)
- 953 BARATTA, MARIO. I terremoti d'Italia: saggio di storia geografia e bibliografia sismica Italiana. Torino, 1901, 950 pp. (Bibl., 845-950

*Not seen.

- ca 1500 entries. 1488-1898. Regional.)
- 954 BRANNER, J. C. Earthquakes in Brazil. *Journ. Geol.*, 18, 1910: 327-335. (16 entries. 1817-1909. Regional.)
- 954a *BROOKLYN PUBLIC LIBRARY. Earthquakes and volcanoes; a list of books with references to periodicals in the Brooklyn public library. 2d ed. Brooklyn, N. Y., 1909. 28 p.
- 955 FULLER, M. L. The New Madrid earthquake. Washington, 1912, 119pp. *U. S. Geol. Surv., Bull.* 494. (Bibl., 111-115. 58 entries. 1812-1906. Regional.)
- 956 GILBERT, G. K., and others. The San Francisco earthquake and fire of April 18, 1906. . . . Washington, 1907, 170 pp. *U. S. Geol. Surv., Bull.* 324. (List of papers, 159-161. 41 entries. 1906-07. Regional.)
- 957 HOBBS, W. H. The recent advance in seismology. *Journ. Geol.*, 15, 1907: 288-297, 396-409. (43 entries. 1843-1907. Footnotes.)
- 958 HOERNES, R. Erdbeben und Stosslinien Steiermarks. Wien, 1902, 115 pp. *Erdbeben - Komm. Akad. Wissensch. Wien, Mitth. n. f. 7.* (Literature, 8-14. 82 entries. 1916-1895. Regional.)
- 959 HOERNES, R. Das Erdbeben von Messina am 28. Dezember 1908. *Geol. Rundsch.*, 1, 1910, Besprech.: 177-178. (23 entries. 1909. Regional.)
- 960 HOERNES, R. Kryptovulkanische ode, Injektionsbeben. *Geol. Rundsch.* 2, 1911: 382-384. (61 entries. 1887-1910. General.)
- 961 HOBGEN, G. Brief summary of seismological work in New Zealand and Australia since 1888. *Beitr. z. Geophys., Erg. 1*, 1902: 195. (10 entries. 1888-1900. Regional.)
- 961a HOLDEN, E. S. A catalogue of earthquakes on the Pacific coast, 1769-1897. Washington, 1898, 253 pp. *Smith. Misc. Col.* 37, art. 5. (Bibl., 3-6. 66 entries. 1845-95. Regional.)
- 961b *INTERNATIONAL seismological association. Central bureau. Library. Verzeichnis der Bibliothek des Zentralbureaus der internationalen seismologischen Assoziation. Wurzburg, 1909. 22p.
- 962 KOMOROWICZ, MAURICE VON. Bericht über die im Monat März d. j. 1913 auf den Sangir- und Philippineninseln, sowie in nord-Celebes stattgefundenen seismischen Erscheinungen. *Zeit. f. Vulkan.*, 2, 1915-16: 152. (12 entries. 1859-1915. Regional.)
- 963 LEMOINE, PAUL. Les tremblements de terre du bassin de Paris, leurs relations avec les accidents tectoniques. *Soc. géol. France, Bull.* 4th ser., 11, 1911: 362-365. (79 entries. 1734-1911. Regional.)
- 964 LUMBIER, M. M. Description historique de la Red seismologica nacional. Mexico, 1919, 68pp. Mexico. *Inst. geol., Bol.* 18. (Bibl., 59-68. 141 entries. 1591-1919. Regional.)
- 965 LUMBIER, M. M. La seismologia en Mexico hasta 1917. Mexico, 1918, 102pp. Mexico. *Inst. geol., Bol.* 36. (Bibl., 92-100. 173 entries. 1739-1917. Regional.)
- 966 MELI, ROMOLO. Notizie sismo-geologiche su Soriano-Calabro. *Pont. Accad. rom. Lincei, Atti* 71, 1918: 184-188. (22 entries. 1638-1918. Footnotes.)
- 967 MILNE, JOHN. Earthquakes and other earth movements. N. Y. 1908, 376 pp. (List of principal books . . . 355-370. 352 entries. 1669-1897. General.)
- 968 *MONTESSUS DE BALLORE, F. Bibliografia de Terremotos. Herausgegeben von der Sociedad Chilena de Historia y Geografia. Santiago de Chile. 1915-21.
- 968a *MONTESSUS DE BALLORE, F. A general bibliography of earthquakes and tremors. Published by Chilean society of history and geography, 1915, 1916.
- 969 ODDONE, EMILIO. Intorno ad alcuni problemi che interessano la vulcanologia e la sismologia. *Soc. sism. ital., Bol.* 18, 1914: 366. (7 entries. 1889-1909. General.)
- 970 ODDONE, EMILIO. Sulle recenti variazioni di livello marino della Regione Mediterranea Centrale attribuite ai bradisismi. *Soc. sism. Ital., Boll.* 18, 1914: 82-84. (29 entries. 1895-1914. General.)
- 971 ODENBACH, F. J. A small library on modern seismology. *Seis. Soc. Am., Bull.* 1, 1911: 109-109. (25 entries. 1857-1910. General.)
- 972 OLDHAM, R. D. Report on the great earthquake of 12th June 1897. *India Geol. Surv., Mem.*

*Not seen.

- 29, 1899, App. I: 377-379. (22 entries. 1897-98. Regional.)
- 973 POCKELS, F. Die Ergebnisse der neueren Erdbebenforschung in bezug auf die physikalische Beschaffenheit des Erdinneren. Geol. Rundsch., 1, 1910, Besprech.: 249-250. (13 entries. 1897-99. General.)
- 974 SACCO, F. Edilizia sismologica. Norme generali e bibliografia. Giorn. geol. prat., 6, 1908: 86-94. (143 entries. 1784-1908. General.)
- 975 SAMPSON, F. A. The New Madrid and other earthquakes of Missouri. Seis. Soc. Am., Bull. 3, 1913: 69-71. (22 entries. 1819-1910. Regional.)
- 975a SEIDLITZ, W. VON. Erdbeben und Gebirgsbau in Südwestdeutschland . . . Geol. Rundsch. 4, 1913: 262-263. (22 entries. 1907-13. Regional.)
- 976 WICHMANN, ARTHUR. Die erdbeben des Indischen archipels bis zum jahre 1857. Amsterdam, 1918, 193 pp. Akad. Wetenschap. Amsterdam, Verh. (Tweede sect.) 20, no. 4. (Many footnote references. Regional.)
See 79, 1460, 2234, 2439.
- EAST AFRICA.**
- 977 DACQUÉ, E., and KRENKEL, E. Jura und Kreide in Ostafrika. N. J. f. Min., B. B. 28, 1909: 226-232. 119 entries. 1855-1908. Regional.)
See 102, 107, 2646.
- 978 KRENKEL, E. Zur Geologie des zentralen Ost-Afrika. Geol. Rundsch., 1, 1910, Besprech.: 205-208. (69 entries. 1891-1910. Regional.)
See 102, 107, 2646.
- ECHINODERMATA.**
- 979 BATHER, F. A. Caradocian Cystidea from Girvan. Roy. Soc. Edinb., Trans. 49-2, 1914: 512-515. (91 entries. 1859-1911. General.)
- 980 BATHER, F. A. Triassic Echinoderms of Bakony. Res. wissen. Erf. Balatonsees. 1, Pal. Anh. VI, 1911: 265-274. (240 entries. 1669-1909. General. The author states that this is not a bibliography of Triassic Echinoderms, nor does it claim to give every paper mentioning Echinoderms in the Trias of Bakony.)
- 981 CLARK, W. B., and TWITCHELL, M. W. The Mesozoic and Cenozoic Echinodermata of the United States. Washington, 1915, 227 pp. U. S. Geol. Surv., Mon. 54. (Bibl., 14-20, 105-111. 301 entries. 1825-1911. Regional.)
- 982 RAYMOND, P. E. Notes on Cyclocystoides. Canada. Geol. Surv. Vict. Mem. Mus., Bull. 1, 1913: 31-32. (9 entries. 1852-1900. Regional.)
- 983 SCHÖNDORF, FR. Die Asteriden der deutschen Trias. Niedersäch. geol. Ver., Jahresh., 3, 1910: 115-116. (28 entries. 1771-1909. Regional.)
- 984 SCHÖNDORF, FR. Paläozoische See-sterne Deutschlands. II. Die Aspidosomatiden des deutschen Unterdevon. Palaeontographica. 57, 1910-11: 64-65. (46 entries. 1824-1909. Regional.)
- 985 WANNER, JOH. Die Permischen Echinodermen von Timor. I Teil. Stuttgart, 1916, 330 pp. In Wanner, Joh. Paläontologie von Timor. VI. Lief. (71 entries. 1836-1915. General.)
- 986 ZOOLOGICAL SOCIETY, LONDON. Echinoderma [for 1896-1918]. Zool. Rec., 34-55. 1807-1918. (1896-1918. General. 1896-1904 compiled by F. A. Bather. 1905- by M. Grant and others. Forms Section XIV of the Zoological Record. From 1906 to 1914 inclusive, volumes are identical with annual volumes of the International catalogue of scientific literature, N. Zoology. Section V.)
See 1497a.
- ECHINOIDEA.**
- 987 GREGORY, J. W. On Echinocystis and Palaeodiscus—two Silurian genera of Echinoidea. Geol. Soc. London, Q. J. 53, 1897: 134. (16 entries. 1857-96. General.)
- 988 HOFFMANN, BRUNO. Über die allmähliche Entwicklung der verschieden differenzierten Stachelgruppen und der Fasciolen bei den fossilen Spatangoiden. Paläont. Zeit., 1, 1914: 270-271. (41 entries. 1839-1911. General.)
- 989 JACKSON, R. T. Phylogeny of the Echini, with a revision of Palaeozoic species. Boston, 1912, 491 pp. Boston Soc. Nat. Hist., Mem. 7. (Bibl., 459-474. 256 entries. 1618-1911. General.)
- 990 KEW, W. S. W. Bibliography of Pacific Coast Cretaceous and Cenozoic Echinoidea. Cal. Univ., Pub. in Geol., 12, no. 2, 1920: 49-51.
- 991 KLEM, M. J. A revision of the Paleozoic Paleoechinoidea, with a synopsis of all known species.

- St. Louis Acad. Sci., Trans. 14, 1904: 76-97. (236 entries. 1828-1903. General.)
- 992 LAMBERT, L., and THIÉRY, P. Essai de nomenclature raisonnée des échinides. Fasc. I, II. Chaumont, 1909-10. (Bibl., 45-114. 1519 entries. 1476-1910. General.)
- 993 STEFANINI, G. Sugli echini terziari dell'America del Nord. Soc. geol. ital., Boll. 30, 1911: 679-682. (47 entries. 1827-1911. Regional.)
- ECLOGITE.**
- 994 DÜLL, ERNST. Ueber die Eklogite des Münchberger Gneiss-gebietes. Ein Beitrag zur Kenntnis ihrer genetischen Verhältnisse. Geogn. Jahresh., 15, 1902: 66-69. (113 entries. 1796-1902. General. Published as a thesis of University of Erlangen, 1902.)
- 995 HEZNER, L. Ein Beitrag zur Kenntnis der Eklogite und Amphibolite, mit besonderer Berücksichtigung der Vorkommnisse des mittleren Ötztals. T. M. P. M. n. f. 22, 1903: 575-578. (71 entries. 1871-1902. General.)
- ECUADOR.** See 2476.
- EDENTATA.** See 1627.
- EGYPT.**
- 996 BALL, JOHN. A description of the First or Aswan cataract of the Nile. Cairo, 1907, 121 pp. Egypt. Surv. Dept. (61 entries. 6th Cent. B. C.-1902. Regional.)
- 997 BALL, JOHN. Kharga oasis: its topography and geology. Cairo, 1900, 116 pp. Egypt Geol. Surv., Rept. 1899-II. (Literature, 9. 8 entries. 1821-94. Regional.)
- 998 BARRON, T., and HUME, W. F. Topography and geology of the Eastern Desert of Egypt central portion. Cairo, 1902, 331 pp. Egypt Geol. Surv. Rept. (Literature, 297-306. 78 entries. 1813-1900. Footnotes.)
- 999 BEADNELL, H. J. L. The topography and geology of the Fayum province of Egypt. Cairo, 1905, 101 pp. Egypt Surv. Dept. (Literature, [87]-88. 43 entries, 1873-1904. Regional.)
- 1000 EGYPT. SURVEY DEPARTMENT. Bibliography of scientific and technical literature relating to Egypt, 1800-1900. Preliminary edition. Cairo, 1915, 155 pp. (ca 200 entries. 1800-1900. Regional.)
- 1001 HUME, W. F. The topography and geology of the Peninsula of Sinai (southeastern portion). Cairo, 1906, 280 pp. Egypt Surv. Dept. (Literature, 235-238. 6 entries. 1829-90. Citations.)
- 1001a *HUME, W. F. The principles and objects of geology with special reference to the geology of Egypt. Survey department. (Short catalog of the maps, plans and publications issued by the Survey department; ix p. at end.)
- 1002 KLEBELSBERG, R. v. Beiträge zur Kenntnis der alttertiären Evertebraten-Fauna Egyptens. Deutsch. geol. Gesell., Zeit. 65, 1913: 382-383. (25 entries. 1854-1912. Regional.)
- 1003 WEILL, RAYMOND. La presqu'île du Sinai: étude de géographie et d'histoire. Paris, 1908, 380 pp. (Bibl., [253]-358. 406 entries. ? -1906. Footnotes.
See 651, 662, 676, 677, 1123, 1959, 2765, 2803, 2815, 2816.
- ELEOLITE and LEUCITE SYENITE.** See 2145.
- ELEPHANT.** See 1617, 1631, 2758, 2759, 2765.
- ELEVATION and SUBMERGENCE.**
- 1004 HÖGBOM, A. G. Eine graphische Darstellung der spätquartären Niveaiveränderungen Fennoskandias. Upsala, Univ. Bull. Geol. Inst. 16, 1919: 179-180. (27 entries. 1906-19. Regional.)
- 1005 WATSON, T. L. Evidences of recent elevation of the southern coast of Baffinland. Journ. Geol., 5, 1897: 32-33. (25 entries. 1867-1896. Regional. A partial bibliography of recent elevations in northern America.)
See 970, 1884, 1885, 1886, 1887, 1911, 2178, 2532, 2571.
See also SHORE LINES.
- EMERALDS.**
- 1006 POGUE, J. E. The emerald deposits of Muzo, Colombia. Am. Inst. M. E., Trans. 55, 1917: 933. (8 entries. 1875-1915. Regional.)
- EMERY.**
- 1007 PAPAVALIOU, S. A. Die Smirgelagerstätten von Naxos nebst denjenigen von Irakliä und Sikiнос. Deutsch. geol. Gesell., Zeit. 65, 1913: 1-123. (50 entries. 1833-1910. Footnotes.)
See 94.
- ENGADINE.** See 145.
- ENGLAND.**
- 1008 ARBER, E. A. N. The fossil flora of the Culm Measures of north-

*Not seen.

- west Devon, and the palaeobotanical evidence with regard to the age of the beds. Roy. Soc. Lond., Phil. Trans. B. 197, 1904: 321-324. (54 entries. 1814-1904. Regional.)
- 1009 ARBER, E. A. N. The fossil flora of the Cumberland coalfield, and the palaeobotanical evidence with regard to the age of the beds. Geol. Soc. London, Q. J. 59, 1903: 21-22. (23 entries. 1729-1901. Regional.)
1010. ARBER, E. A. N. The fossil flora of the southern portion of the Yorkshire coalfield, Part II. Yorks. Geol. Soc., Proc. n. s. 19, 1919-20: 357-358. (8 entries. Regional.)
- 1011 ARBER, E. A. N. On the fossil flora of the Forest of Dean coalfield (Gloucestershire) and the relationships of the coalfields of the west of England and south Wales. Roy. Soc. Lond., Phil. Trans. B. 202, 1912: 278-280. (35 entries. 1841-1911. Regional.)
- 1012 ARBER, E. A. N. On the fossil flora of the Kent coalfield. Geol. Soc. London, Q. J. 70, 1914: 80. (5 entries. 1892-1914. Regional.)
- 1013 ARBER, E. A. N. On the fossil floras of the Coal Measures of south Staffordshire. Roy. Soc. Lond., Phil. Trans. B. 208, 1916: 151-153. (36 entries. 1837-1914. Regional.)
- 1014 ARBER, E. A. N. On the fossil floras of the Wyre Forest, with special reference to the geology of the coalfield and its relationships to the neighbouring coal measure areas. Roy. Soc. Lond., Phil. Trans. B. 204, 1914: 437-443. (98 entries. 1811-1914. Regional.)
- 1015 AVEBURY, Sir J. L. The scenery of England and the causes to which it is due. N. Y. 1902, 534 pp. (List of works . . . 507-521. 340 entries. 1779-1901. Regional.)
- 1016 BLAKE, J. F. A monograph of the fauna of the Cornbrash. London, 1905-07, 106 pp. Palaeont. Soc. Publ. (Chronological list, 18-21. 78 entries. 1812-1904. Regional.)
- 1017 BOSWELL, P. G. H. On the age of the Suffolk valleys: with notes on the buried channels of drift. Geol. Soc. London, Q. J. 69, 1913: 617-618. (38 entries. 1856-1913. Regional.)
- 1018 BOSWELL, P. G. H. On the occurrence of the North Sea drift (Lower Glacial), and certain other brick-earths, in Suffolk. Geol. Assoc., Proc. 25, 1914: 151-153. (18 entries. 1868-1914. Regional.)
- 1019 *BUCKMAN, S. S. Bibliographical notes on Murchison's 'Geology of Cheltenham.' Cheltenham, 1906, pp. 1-4.
- 1020 BUCKMAN, S. S. Certain Jurassic (Lias-Oolite) strata of south Dorset; and their correlation. Geol. Soc. London, Q. J. 66, 1910: 53-54. (13 entries. 1889-1907. Regional.)
- 1021 BURY, HENRY. The denudation of the western end of the Weald. Geol. Soc. London, Q. J. 66, 1910. 691-692. (29 entries. 1847-1909. Regional.)
- 1021a *COLLINS, J. H. Observations on the west of England mining region, being an account of the mineral deposits and economic geology of the region and forming vol. 14 of the Transactions of the Royal geological society of Cornwall. Plymouth, 1912, 683 pp. (List of principal works, xv-xx.)
- 1021b *DEWEY, H., and BROMEHEAD, C. E. N. The geology of the country around Windsor and Chertsey. London, 1915, 123 pp. Gt. Brit. Geol. Surv., Mem. (List of principal works . . . 116-118.)
- 1022 DRAKE, H. C. Classified list of organic remains from the rocks of the East Riding of Yorkshire. Yorks. Geol. Soc., Proc. n. s. 17, 1909-1911: 6, 15, 27, 28, 38, 43, 54, 57, 58, 62, 63, 65, 66. (103 entries. 1864-1910. Regional.)
- 1022a *FLETT, J. S., and HILL, J. B. The geology of the Lizard and Menage. London, 1912, 280 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 264-273.)
- 1023 FOX-STRANGWAYS, C. The geology of the country between Atherstone and Charnwood Forest. . . . London, 1900, 102 pp. Gt. Brit. Geol. Surv., Mem. (List of works, 70-96. 426 entries. 1622-1900. Regional.)
- 1024 FOX-STRANGWAYS, C. The water supply (from underground sources) of the East Riding of Yorkshire . . . with records of sinkings and borings. London,

*Not seen.

- 1906, 181 pp. *Gt. Brit. Geol. Surv., Mem.* (Bibl., 165-173. 133 entries. 1734-1905. Regional.)
- 1024a *GIBSON, W., *and others.* The geology of the northern part of the Derbyshire coalfield and bordering tracts. London, 1913, 186 pp. *Gt. Brit. Geol. Surv., Mem.* (Selected list of works. . . . 168-173.)
- 1025 GIBSON, WALCOT. On the character of the upper coal-measures of North Staffordshire, Denbighshire, South Staffordshire, and Nottinghamshire. *Geol. Soc. London, Q. J.* 57, 1901: 265. (20 entries. 1839-1900. Regional.)
- 1026 GUNN, W. The geology of Belford, Holy Island, and the Farne Islands, Northumberland. London, 1900, 155 pp. *Gt. Brit. Geol. Surv., Mem.* (Bibl., 143-148. 80 entries. 1769-1898. Regional.)
- 1027 GUNN, W. The geology of the country between Norham and Tweedmouth in Northumberland. . . London, 1897, 20 pp. *Gt. Brit. Geol. Surv., Mem.* (List of publ., 18. 10 entries. 1831-96. Regional.)
- 1028 HARKER, ALFRED. List of the principal publications dealing with the petrology of the English Lake District. *Yorks. Geol. Soc., Proc.*, n. s. 14, 1900-1902: 494-496. (70 entries. 1873-1901. Regional.)
- 1029 HEWITT, W. List of papers etc., on the geology of the country round Liverpool, from 1890-1909. *Liverpool Geol. Soc., Proc.* 11, 1911: 59-75. (128 entries. 1890-1909. Regional.)
- 1030 HILL, J. B., and MACALISTER, D. A. The geology of Falmouth and Truro and of the mining district of Camborne and Redruth. London, 1906, 335 pp. *Gt. Brit. Geol. Surv., Mem.* (Bibl., 315-324. 269 entries. 1759-1906. Regional.)
- 1031 HOLMES, T. V. The geology of London, 1899, 64 pp. *Gt. Brit. Geol. Surv., Mem.* (List of works, 58-60. 36 entries. 1769-1895. Regional.)
- 1032 HOLST, N. O. *Istiden i England.* *Geol. fören. Stockh. Förh.* 38, 1916: 335-338. (52 entries. 1874-1914. Regional.)
- 1033 *HOPKINSON, JOHN. Works on the geology of Hertfordshire 1884-1900. *Nat. Hist. Soc. Hertford, Trans.* 11, 1902: 87-104.
- 1034 ILLING, V. C. The paradoxidian fauna of a part of the Stockingford shales. *Geol. Soc. London, Q. J.* 71, 1915: 388. (13 entries. 1822-1913. Regional.)
- 1035 JUKES-BROWNE, A. J., and HILL, WILLIAM. The Upper Chalk of England. London, 1904, 566 pp. *Gt. Brit. Geol. Surv., Mem. Cret. rocks*, vol. 3. (Bibl., 520-556. 586 entries. 1628-1902. Regional.)
- 1036 KENDALL, P. F. The geology of the districts around Settle and Harrogate. *Geol. Assoc., Proc.* 22, 1911: 58-60. (30 entries. 1853-1910. Regional.)
- 1037 LAMPLUGH, G. W. The geology of the Isle of Man. London, 1903, 620 pp. *Gt. Brit. Geol. Surv., Mem.* (Bibl., 588-595. 167 entries. 1656-1903. Regional.)
- 1037a *LAMPLUGH, G. W., *and others.* The geology of the Melton Mowbray district and south-east Nottinghamshire. London, 1909, 118 pp. *Gt. Brit. Geol. Surv., Mem.* (Bibl., 108-109.)
- 1037b *LAMPLUGH, G. W., *and others.* The geology of the country around Ollerton. London, 1911, 93 pp. *Gt. Brit. Geol. Surv., Mem.* (List of principal works . . . 82-84.)
- 1038 LANG, W. D. The geology of the Charmouth cliffs, beach and foreshore. *Geol. Assoc., Proc.* 25, 1914: 354-359. (119 entries. 1762-1914. Regional.)
- 1039 MATLEY, C. A. The Upper Keuper (or Arden) sandstone group and associated rocks of Warwickshire. *Geol. Soc. London, Q. J.* 68, 1912: 276-278. (34 entries. 1837-1909. Regional.)
- 1040 REED, F. R. C. A handbook to the geology of Cambridgeshire, for the use of students. Cambridge, 1897, 276 pp. (Bibl., 243-263. 296 entries. 1819-97. Regional.)
- 1041 REID, CLEMENT, and ELEANOR M. The lignite of Bovey Tracey. *Roy. Soc. Lond., Phil. Trans. B.* 1910: 177-178. (23 entries. 1850-1909. Regional.)
- 1041a *REID, CLEMENT, *and others.* The geology of the country around Tavistock and Launceston. London, 1911, 146 pp.

*Not seen.

- Gt. Brit. Geol. Surv., Mem. (List of principal works . . . 131-135.)
- 1041b *REID, CLEMENT, and others. The geology of Dartmoor. London, 1912, 102 pp. Gt. Brit. Geol. Surv., Mem. (List of principal works . . . 92-94.)
- 1042 SHEPPARD, THOMAS. Bibliography: papers and records published with respect to the natural history and physical features of the North of England. Geology and palaeontology, 1894-1901. Naturalist, Mar.-Apr. 1899: 81-103; Oct.-Nov. 1899: 305-324; June 1900: 173-191; Jan.-Feb. 1901: 17-36; Oct.-Nov. 1901: 305-324; Oct. 1902: 317-336; Apr. 1903: 141-160, 413-416, 463-473. (1894-1901. Regional.)
- 1043 SHEPPARD, THOMAS. Bibliography: papers and records published with respect to the geology and palaeontology of the North of England (Yorkshire excepted) during 1909-1919. Naturalist, 1919: 257-270; 1912: 152-160, 188-190, 345-352, 371-372; 1913: 261-270; 1914: 161-166, 193-199; 1915: 271-274, 303-306; 1916: 67-74; 1917: 106-109, 171-175; 1918: 169-171, 198-201; 1919: 97-101, 141-142; 1920: 67-71, 108-111. (1902-19. Regional.)
- 1044 SHEPPARD, THOMAS. Bibliography 1901-1905, being a list of papers dealing with the geology of East Yorkshire and north Lincolnshire. Geol. Soc. Hull, Trans. 6, 1906: 82-93. (137 entries. 1901-05. Regional.)
- 1044a SHEPPARD, THOMAS. Bibliography of Yorkshire geology, 1915-17. Yorks. Geol. Soc., n. s. 19, pt. 2, 1916: 59-66; pt. 4, 1918: 330-344. (340 entries. 1914-17. Chronol.)
- 1045 SHEPPARD, THOMAS. Bibliography of Yorkshire geology, 1918-19. Yorks. Geol. Soc., Proc. n. s. 19, 1919-20: 363-3 6. (207 entries. 1918-19. Regional.)
- 1046 SHEPPARD, THOMAS. Bibliography of Yorkshire geology (C. Fox-Strangways' memorial volume). Yorks. Geol. Soc., Proc. 18, 1915, 629 pp. (ca 8000 entries. 1534-1914. Regional.)
- 1047 SHEPPARD, THOMAS. List of papers, maps, etc., relating to the erosion of the Holderness coast and to changes in the Humber estuary. Geol. Soc. Hull, Trans. 6, 1906: 43-57. (268 entries. 18? -1905. Regional.)
- 1048 SHEPPARD, THOMAS. List of papers referring to the geology and palaeontology of East Yorkshire and North Lincolnshire, 1906-9. Geol. Soc. Hull, Trans. 6, 1910: 142-165. (275 entries. 1906-09. Regional.)
- 1049 *SHEPPARD, THOMAS. Papers and records published with respect to the geology and palaeontology of the North of England, 1902-08. Yorks. Nat. Union, Leeds. Trans. 34, 1909, Bibl. pp. 1-119.
- 1050 SHERLOCK, R. L. The relationship of the Permian to the Trias in Nottinghamshire. Geol. Soc. London, Q. J. 67, 1911: 114-116. (71 entries. 1841-1910. Regional.)
- 1051 *SHORE, T. W. Hampshire papers on the natural history and antiquities of the county and other miscellanea. [Ironworks, geology, implements and Southampton town geology.] Hants field-club Shore memorial Southampton, 1, pt. 1, 1908: 1-171.
- 1052 SHORT, A. R. A description of some Rhaetic sections in the Bristol district, with considerations on the mode of deposition of the Rhaetic series. Geol. Soc. London, Q. J. 60, 1904: 190-192. (62 entries. 1845-1903. Regional.)
- 1053 SMITH, BERNARD. The geology of the Nottingham district. Geol. Assoc., Proc. 24, 1913: 239-240. (32 entries. 1861-1913. Regional.)
- 1054 STOBBS, J. T. The marine beds in the coal-measures of north Staffordshire. Geol. Soc. London, Q. J. 61, 1905: 523-527. (145 entries. 1791-1904. Regional.)
- 1055 STRAHAN, AUBREY. The geology of the Isle of Purbeck and Weymouth. London, 1898, 278 pp. Gt. Brit. Geol. Surv., Mem. (List of books . . . 241-268. 595 entries. 1761-1898. Regional.)
- 1056 STRAHAN, AUBREY. Guide to the geological model of the Isle of Purbeck. London, 26 pp. Gt. Brit. Geol. Surv., Mem. (List of works, 23-24. 24 entries. 1816-1903. Regional.)
- 1057 THOMAS, H. H. The fossil flora of the Cleveland district of Yorkshire: I. The flora of the

*Not seen.

- Marske quarry. Geol. Soc. London, Q. J. 69, 1913: 248. (26 entries. 1869-1913. Regional.)
- 1058 TIDDEMAN, R. H. The water supply of Oxfordshire, with records of sinking and borings... London, 1910, 108 pp. Gt. Brit. Surv., Mem. (Bibl., 101-103. 46 entries. 1816-1904. Regional.)
- 1059 TRECHMANN, C. T. Bibliography of the glaciology of Durham and the immediately adjacent areas. Geol. Soc. London, Q. J. 71, 1915: 80. (19 entries. 1864-1910. Regional.)
- 1060 USSHER, W. A. E. The geology of the country around Exeter. London, 1902, 122 pp. Gt. Brit. Geol. Surv., Mem. (List of works... 114-116. 40 entries. 1793-1899. Regional.)
- 1060a *USSHER, W. A. E., and others. The geology of the country around Bodmin and St. Austell. London, 1909, 201 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 182-185.)
- 1060b *USSHER, W. A. E., and others. The geology of the country around Newton Abbot. London, 1913, 149 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 137-141.)
- 1061 WARD, JOHN. Additions to the literature relating to the geology, mineralogy, and palaeontology of North Staffordshire [1899-1902]. North Stafford. Field Club, Trans. 36, 1902: 94-97. (32 entries. 1899-1902. Regional.)
- 1062 WARD, JOHN. Literature relating to the geology, mineralogy and palaeontology of North Staffordshire. North Stafford. Field Club, Trans. 39, 1905: 129-132. (33 entries. 1902-04. Regional.)
- 1063 WHITAKER, W. Twelve years of London geology. (General, recent, and drift.) Geol. Assoc., Proc. 17, 1901-1902: 81-109, 342-364. (114 entries. 1874-1902. Regional.)
- 1064 WHITAKER, WILLIAM. The water supply of Hampshire (including the Isle of Wight), with records of sinkings and borings... London, 1910, 252 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 227-232. 111 entries. 1856-1909. Regional.)
- 1065 WHITAKER, WILLIAM. The water supply of Surrey, from underground sources, with records of sinkings and borings. London, 1912, 352 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 324-333. 176 entries. 1718-1912. Regional.)
- 1066 WHITAKER, W., and JUKES-BROWNE, A. J. The geology of the borders of the Wash: including Boston and Hunstanton. London, 1899, 146 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 135-143. 201 entries. 1844-98. Regional.)
- 1067 WHITAKER, W., and THRESH, J. C. The water supply of Essex from underground sources. London, 1916, 510 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 467-473. 129 entries. 1849-1915. Regional.)
- 1068 WOODWARD, H. B., and THOMPSON, BEEBY. The water supply of Bedfordshire and Northamptonshire, from underground sources: with records of sinkings and borings. London, 1909, 230 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 219-222. 84 entries. 1712-1907. Regional.)
- 1068a *WOODWARD, H. B., and others. The geology of the country near Sidmouth and Lyme Regis. 2d ed. London, 1911, 102 pp. Gt. Brit. Geol. Surv., Mem. (List of principal works... 92-95.)
See 45, 46, 47a, 644, 646a, 856, 1071, 1117, 1125, 1126, 1317, 1370, 1371, 1653, 1741b, 1824, 2008, 2068, 2069.

EOCENE.

- 1069 BERRY, E. W. The Upper Cretaceous and Eocene floras of South Carolina and Georgia. Washington, 1914, 99 pp. U. S. Geol. Surv., Prof. Paper 84. (Bibl., 161-163. 82 entries. 1853-1911. General. Refers entirely to Eocene flora and to works on modern plant distribution and ecology which have some bearing on it.)
- 1070 DAINELLI, GIOTTO. La fauna eocenica di Bribir in Dalmazia. Parte 2. Palaeont. ital., 11, 1905: 87-91. (168 entries. 1766-1903. General.)
See 330, 582, 676, 677, 824, 834, 859, 900, 1123, 1138, 1145, 1151, 1152, 1158a, 1205, 1467, 1579, 1612, 1657, 1824, 1990, 2225, 2226, 2228, 2602, 2766.

EOLIAN GEOLOGY. See SOILS.

*Not seen.

EOLITHS.

- 1071 BULLEN, R. A. Eoliths from south and southwest England. *Geol. Mag.*, n. s. IV, 10, 1903: 108-110. (51 entries. 1889-1903. General.)

EROSION.

- 1072 ANDREWS, E. C. Corrasion by gravity streams with applications of the ice flood hypothesis. *Roy. Soc. N. S. Wales, Journ. & Proc.* 43, 1909: 328-330. (15 entries. 1895-1909. General.)
- 1073 CARNEY, FRANK. The development of the idea of glacial erosion in America. *Denison Univ. Sci. Lab., Bull.* 14, 1908-1909: 197-208. (15 entries. 1873-1908. Citations.)
- 1074 DAVIS, W. M. Glacial erosion in France, Switzerland and Norway. *Boston Soc. Nat. Hist., Proc.* 29, 1901: 321-322. (30 entries. 1843-1900. Regional.)
- 1075 HÖGBOM, BERTIL. Über die geologische Bedeutung des Frostes. *Upsala Univ., Bull. Geol. Inst.* 12, 1913-14: 384-389. (140 entries. 1837-1913. General.)
- 1076 JAGGAR, T. A., Jr. Experiments illustrating erosion and sedimentation. *Harvard Univ. Mus. Comp. Zool., Bull. Geol. ser.*, 8, no. 6, 1908: 304-305. (18 entries. 1879-1905. General.)

See also SHORE LINES.

ESKERS.

- 1077 GILES, A. W. Eskers in the vicinity of Rochester, New York. *Rochester Acad. Sci., Proc.* 5, 1918: 234-240. (126 entries. 1853-1914. General.)
- 1078 GREGORY, J. W. The Irish eskers. *Roy. Soc. Lond., Phil. Trans. B.* 210, 1290: 149-151. (50 entries. 1859-1916. Regional.)
- 1079 TROWBRIDGE, A. C. The formation of eskers. *Iowa Acad. Sci., Proc.* 21, 1914: 217-218. (20 entries. n.d. General.)

ESSEXITE See 2145.**ETNA.** See 1466.**EUROPE.**

- 1079a *COLE, G. A. J. The growth of Europe. London, New York, 1914, 256 pp. (Bibl., 244-247.) See 1614a.

EURYPTERIDAE.

- 1080 O'CONNELL, MARJORIE. The habitat of the Eurypterida. *Buffalo Soc. Nat. Sci., Bull.* 11, no. 3, 1916: 257-277. (329 entries. 1825-1914. General.)

*Not seen.

- 1081 STAINIER, XAVIER. On a new Eurypterid from the Belgian coal measures. *Geol. Soc. London, Q. J.* 71, 1915: 646-647. (16 entries. 1854-1912. General.)

EVOLUTION.

- 1082 BEECHER, C. E. Studies in evolution; mainly reprints . . . N. Y. 1901, 638 pp. (References, 102-105. 74 entries. 1851-97. General. Other references given are: "Structure and development of trilobites," pp. 157-159, 195-196, 219. 85 entries. 1822-95. "Development of the brachiopoda," pp. 272-273. 23 entries. 1861-95.)
- 1083 KNIPE, H. R. Evolution in the past. London, 1912, 242 pp. (Authorities consulted, 217-226. 255 entries. 1847-1910. General.)
- 1084 OSBORN, H. F. The origin and evolution of life. N. Y. 1917, 322 pp. (Bibl., 293-306. 171 entries. 1795-1917. General.) See 1596, 1597, 1795, 2172, 2227, 2310, 2317, 2653, 2761, 2762.

FÄROE ISLANDS.

- 1085 CURRIE, JAMES. The mineralogy of the Faeröes arranged topographically. Edinburgh Geol. Soc., *Trans.* 9, 1907: 6-9. (51 entries. 1790-1905. Regional.)

FALKLAND ISLANDS.

- 1086 HALLE, T. G. On the geological structure and history of the Falkland Islands. *Upsala Univ., Bull. Geol. Inst.* 11, 1912: 223-226. (81 entries. 1828-1909. Regional.)

FAULTS.

- 1087 DAVIS, W. M. Nomenclature of surface forms on faulted structures. *Geol. Soc. Am., Bull.* 24, 1913: 215-216. (41 entries. 1882-1912. General.)
- 1088 FRÖDIN, GUSTAF. Om fjällproblemets nuvarande läge i Sverige. *Geol. Fören. Stockh. Förh.*, 43, 1921: 174-176. (48 entries. 1783-1920. Regional.)
- 1088a HOBBS, W. H. On some principles of seismic Geology . . . *Beitr. z. Geophys.*, 7. 1907. pp. 219-292. (140 entries. 1783-1906. General.)
- 1088b *HÖFER VON HEIMHALT, HANS. Die Verwerfungen (Paraklase, exokinetische Spalten). Braun-schweig, 1917, 128 pp. (Bibliographical footnotes.)
- 1089 HUNTINGTON, ELLSWORTH, and GOLDTHWAIT, J. W. The Hur-

rican fault in the Toqueville district, Utah. Cambridge, Mass., 1904, pp. 199-259. Harvard Univ. Mus. Comp. Zool., Bull. Geol. ser. 6, no. 5. (Bibl., 256-257. 24 entries. 1875-1903. Regional.)

FELDSPAR.

- 1090 CARRASCO, ELVIRA. Contribution à l'étude des macles des feldspaths au moyen de la méthode de Fedoroff. Soc. vaud. sci. nat. Bull. 52, 1920: 560-563. (56 entries. 1847-1918. General.)
- 1091 GROSSPIETSCH, O. Labradorit. T. M. P. M., n. f. 33, 1915:46-47. (20 entries. 1869-1913. General.)
- 1092 SCHMID, H. S. DE. Feldspar in Canada. Ottawa, 1916, 125 pp. Canada Dept. Mines. Mines Br. 401. (Bibl., 107-108. 33 entries. 1901-15. General.)
- 1093 SIGG, HENRI, and FAVRE, GEORGES. Quelques courbes nouvelles pour la détermination des Feldspaths par la méthode de Fedoroff. Lausanne, Univ. Lab. géol. Bull. 21, 1917: 43-44. (14 entries. 1893-1917. General.)

See 1699, 1738.

FENNOSCANDIA.

- 1094 HÖGBOM, A. G. Fennoskandia (Norwegen, Schweden, Finnland). Heidelberg, 1913, 197 pp. Handb. reg. Geol., 13. (Literature, 187-195. 253 entries. 1870-1913. Regional.)
- 1095 SEDERHOLM, J. J. Sur la géologie quaternaire et la géomorphologie de la Fennoscandia. Helsingfors, 1911, 66 pp. Finland. Comm. géol., Bull. 30. (Bibl., 15, 31, 46-47, 59, 66. 66 entries. 1879-1910. Regional.)

See 255, 256.

See also SCANDINAVIA AND SEPARATE COUNTRIES.

FERBERITE.

- 1096 HESS, F. L., and SCHALLER, W. T. Colorado ferberite and the wolframite series. Washington, 1914, 75 pp. U. S. Geol. Surv., Bull. 583. (Bibl., 74-75. 19 entries. 1850-1913. General.)

FERNS. See PTERIDOPHYTA.**FERTILIZERS. See GYPSUM, MARLS, PHOSPHATES.****FIJI ISLANDS.**

- 1097 FOYE, W. G. Geological observations in Fiji. Am. Acad. Arts & Sci., Proc. 54, 1918: 143-145. (93 entries. 1842-1916. Regional.)

- 1098 WOOLNOUGH, W. G. The continental origin of Fiji. Linnean Soc. N. S. W., Proc. 28, 1903: 493-495. (21 entries. 1869-1902. Regional.)

FINLAND.

- 1099 ESKOLA, PENTTI. On the petrology of the Orijärvi region in southwestern Finland. Helsingfors, 1914, 277 pp. Finland. Comm. géol., Bull. 40. (Bibl., 265-267. 43 entries. 1818-1914. Regional.)
- 1100 HACKMAN, VICTOR. Der gemischte Gang von Tuutijärvi im nördlichen Finnland. Helsingfors, 1914, [44] pp. Finland. Comm. géol., Bull. 39. (Literature, [43-44]. 32 entries. 1880-1913. Regional.)
- 1100a LAITAKARI, AARNE. Über die Petrographie der Kalksteinlagerstätten von Parainen (Pargas). Helsingfors, 1920, 105 pp. Finland. Comm. géol., Bull. 54. (Literaturverzeichnis, 106-113. 97 entries. 1765-1919. Regional.)
- 1101 RAMSAY, WILHELM. Über die geologische Entwicklung der Halbinsel Kola in der Quartärzeit. Helsingfors, 1898, 151 pp. Fennia, 16, no. 1. (Literature, 146-151. 71 entries. 1840-96. Citations.)
- 1102 SEDERHOLM, J. J. Einige Probleme der präkambrischen Geologie von Fennoskandia. Geol. Rundsch., 1, 1910, Besprech: 126-127. (23 entries. 1880-1909. Regional.)
- 1103 SEDERHOLM, J. J., and RAMSAY, W. Les excursions en Finlande. Int. Geol. Cong., VII. St. Pétersbourg, 1897. Guide xiii: 19-22. (59 entries. 1841-97. Regional.)
- 1104 TANNER, V. Studier öfver kvartärssystemet i Fennoskandias nordliga delar. III. Om landisens rörelser och afsmältning i Finska Lappland och angränsande trakter. Helsingfors, 1915, 815 pp. Finland. Comm. géol., Bull. 38. (Literature, 801-815. 390 entries. 1833-1913. Regional.)
- 1104a TRÖSTEDT, OTTO. Die Erzlagerstätten von Pitkäranta am Ladogasee. Helsingfors, 1907, 333 pp. Finland. Comm. géol., Bull. 19. 19. (Literaturverzeichnis, 6-13. 130 entries. 1785-1907. Regional.)

See 1303, 1317, 2274.

See also FENNOSCANDIA; SCANDINAVIA.

FISHES.

- 1105 CHAPMAN, F., and PRITCHARD, G. B. Fossil fish remains from the tertiaries of Australia. Roy. Soc. Vict., Proc. 17, 1904. 293-296; 20, 1907: 73. (47 entries. 1835-1906. General.)
- 1106 CRAMER, RUDOLF. Über *Mene rhombeus* (Volta sp.) Deutsch. geol. Gesell., Zeit. 58, 1906, Monatsb: 211-212. (31 entries. 1755-1904. General.)
- 1107 DEAN, BASHFORD, and EASTMAN, C. R. A bibliography of fishes. 2 vols. N. Y. 1916-17. (General.)
- 1108 DEAN, BASHFORD, and NEWBERRY, J. S. The Devonian lamprey *Palaeospondylus gunni* Traquair, with notes on the systematic arrangement of the fish-like vertebrates. N. Y. Acad. Sci., Mem. 2, pt. 1, 1899: 30. (19 entries. 1890-98. General.)
- 1109 EASTMAN, C. R. The literature of *Edestus*. Am. Nat., 39, 1905: 407-409. (44 entries. 1856-1903. General.)
- 1110 EASTMAN, C. R. On the nature of *Edestus* and related forms. Mark anniversary volume. N. Y. 1903, pp. 279-289. (Bibl., 288-289. 21 entries. 1856-1903. General.)
- 1111 HENNIG, EDWIN. Gyrodus und die Organization der Pyknodonten. Palaeontographica, 53, 1906: 203-206. (72 entries. 1818-1905. General.)
- 1112 HOFFMANN, GUIDO. Über das Ruderorgan der Asterolepiden. Palaeontographica, 57, 1910-1911: [310]-312. (58 entries. 1834-1908. General.)
- 1113 HUSSAKOF, LOUIS. Studies on the Arthrodira. Am. Mus. Nat. Hist., Mem. 9, pt. 3, 1906: 150-154. (86 entries. 1844-1904. General.)
- 1114 LAMBE, L. M. Palaeoniscid fishes from the Albert shales of New Brunswick. Ottawa, 1910, 35 pp. Canada Geol. Surv., Mem. III (quarto), no. 3, pt. V. (Bibl. 34-35. 22 entries. 1851-1909. General.)
- 1115 LERICHE, M. Contribution à l'étude des Siluridés fossiles. Soc. géol. Nord, Ann. 30, 1901: 172-175. (26 entries. 1825-1900. Regional.)
- 1116 LERICHE, M. Les Poissons oligocènes de la Belgique. Bruxelles, 1910, pp. 299-363. Mus. hist. nat. Belg., Mém. 5, (List of works, 241-243. 27 entries. 1860-1908. Regional.)
- 1117 NEWTON, E. T. On the occurrence of *Edestus* in the coal-measures of Britain. Geol. Soc. London, Q. J. 60, 1904: 7-8. (32 entries. 1855-1903. General.)
- 1118 ROHON, J. V. Die devonischen fische von Timan in Russland. Böhm. Gesell. Wissen., Sitz. 1899, VIII: 75-77. (28 entries. 1833-94. General.)
- 1119 SCHUBERT, R. J. Die Fischotolithen des österr.-ungar. Tertiärs. III. Austria. Geol. Reichsanst., Jahrb. 56, 1906: 705-706. (22 entries. 1849-1906. Regional.)
- 1120 SEGUENZA, LUIGI. I vertebrati della provincia di Messina. Parte prima. Soc. geol. ital., Boll. 19, 1900: 445-455. (151 entries. 1818-1900. General.)
- 1121 SOLLAS, W. J. An account of the Devonian fish, *Palaeospondylus gunni*, Traquair. Roy. Soc. Lond., Phil. Trans. B. 196, 1904: 291-292. (28 entries. 1890-1902. General.)
- 1122 STENSIÖ, E. A. Notes on a Crossopterygian fish from the upper Devonian of Spitzbergen. Upsala Univ., Bull. Geol. Inst. 16, 1919: 122-123. (20 entries. 1844-1918. Regional.)
- 1123 STROMER, ERNST. Die Fischreste des mittleren und oberen Eocäns von Ägypten. Beitr. Paläont. Oesterr.-Ung., 18, 1905: 57-58, 183-184. (91 entries. 1833-1905. General.)
- 1124 STROMER, E., and PEYER, B. Über rezente und triassische Gebisse von Ceratodontidae. Deutsch. geol. Gesell., Zeit. 69, 1917: 77-79. (52 entries. 1811-1912. General.)
- 1125 WOODWARD, A. S. The fossil fishes of the English Wealden and Purbeck formations. London, 1916-1919, 148 pp. Palaeont. Soc. Publ. (Bibl., 2-3. 20 entries. 1827-1911. Regional.)
- 1126 WOODWARD, A. S. On *Dipteronotus cyphus*, Egerton. A ganoid fish from the lower Keuper of Bromsgrove, Worcestershire. Geol. Assoc., Proc. 21, 1909-1910: 323-327. (95 entries. 1822-1910. General.)
See 1201a, 1634.
- FLOOD PLAINS.**
- 1127 DE GEER, STEN. Klarälfvens serpentinlopp och flodplan. Stockholm, 1911, 198 pp. Sweden.

Sver. geol. Undersök., C. 236. Arsbok 4 (1910), no. 8. (Literature, 183-189. 106 entries. 1781-1909. General.)

FLOODS.

- 1128 MURPHY, E. C., and others. Destructive floods in the United States in 1905 with a discussion of flood discharge and frequency and an index to flood literature. Washington, 1906, 105 pp. U. S. Geol. Surv., Water-Supply Paper 162. (Literature, 88-101. 346 entries. 1853-1905. Regional.)

FLORIDA.

- 1129 HARPER, R. M. Geography and vegetation of northern Florida. Florida Geol. Surv., Ann. Rept. 6, 1914: 410-416. (58 entries. 1791-1914. Regional.)
- 1130 SELLARDS, E. H. Bibliography of Florida geology. Florida Geol. Surv., Ann. Rept. 1, 1907-08: 73-108. (212 entries. 1771-1907. Regional.)
- 1131 SELLARDS, E. H. Review of the geology of Florida with special reference to structural conditions. Florida Geol. Surv., Ann. Rept. 12, 1919: 132-141. (138 entries. 1775-1918. Regional.)
See 835, 1638, 2112, 2158, 2161, 2814.

FLUORITE.

- 1132 AURAND, H. A. Fluorspar deposits of Colorado. Denver, Col., 1920, 94 pp. Colo. Geol. Surv., Bull. 18. (Bibl., 87-91. 69 entries. 1869-Regional.)
- 1133 BURCHARD, E. F. Fluorspar and Cryolite. U. S. Geol. Surv., Min. Res. 1916-II, 1919: 324-325. (31 entries. 1898-1916. General.)
See 1550.

FOLIATION.

- 1134 BONNEY, T. G. Foliation and metamorphism in rocks. Geol. Mag., n. s. (VI) 6, 1919: 249-250. (47 entries. 1876-1901. General.)

FOOTPRINTS.

- 1135 LULL, R. S. Fossil footprints of the Jura-Trias of North America. Boston Soc. Nat. Hist., Mem. 5, no. 11, 1904: 547-554. (157 entries. 1828-1904. General.)

FORAMINIFERA.

- 1136 ALTPETER, OTTO. Beiträge zur Anatomie und Physiologie von Alveolina. N. J. f. Min., B. B. 36, 1913: 83-84. (20 entries. 1849-1911. General.)
- 1137 BAGG, R. M., jr. The Cretaceous Foraminifera of New Jersey.

Washington, 1898, 89 pp. U. S. Geol. Surv., Bull. 88. (Bibl., 17-25. 109 entries. 1834-96. General.)

- 1138 BAGG, R. M., jr. Miocene Foraminifera from the Monterey shale of California with a few species from the Tejon formation. Washington, 1905, 172 pp. U. S. Geol. Surv., Bull. 268. (Bibl., 17-18. 26 entries. 1839-98. Regional.)
- 1139 BAGG, R. M., jr. Pliocene and Pleistocene Foraminifera from southern California. Washington, 1912, 153 pp. U. S. Geol. Surv., Bull. 513. (Bibl., 20. 19 entries. 1839-1905. General.)
- 1140 BAGG, R. M., jr. The Tertiary and Pleistocene Foraminifera of the Middle Atlantic slope. Ithaca, N. Y. 1898, 48 pp. Bull. Am. Paleont., 2, no. 10. (Bibl., 8-17. 78 entries. 1833-92. Regional.)
- 1141 CHAPMAN, FREDERICK, and HOWCHIN, WALTER. A monograph of the Foraminifera of the Permian-Carboniferous limestones of New South Wales. Sydney, 1905, 22 pp. New South Wales Geol. Surv., Mem. Palaeont., 14. (Bibl. 21-22. 16 entries. 1850-1902. General.)
- 1142 DEPRAT, J. Étude des Fusulinidés de Chine et d'Indochine et classification des calcaires à Fusulines. Hanio-Haiphong, 1912, 76 pp. Indo-China. Serv. géol., Mem. 1, fasc. 3. (Bibl., 75-76. 60 entries. 1858-1911. Regional.)
- 1143 FRANKE, A. Die Foraminiferen und Ostracoden des Emschers, besonders von Obereving und Derne nördlich Dortmund. Deutsch. geol. Gesell., Zeit. 66, 1914: 428-429. (18 entries. 1840-1912. Regional.)
- 1143a HALKYARD, E., and others. The fossil Foraminifera of the blue marl of the Côte des Basques, Biarritz. Manchester Phil. Soc., Mem. & Proc. 62, pt. 2, 1917-18: 143-145. (31 entries. 1808-1916. Regional.)
- 1144 LEMOINE, PAUL, and DOUVILLÉ, ROBERT. Sur le genre Lepicocyclina Gümbel. Soc. géol. France, Mém. Palaeont. 32, 1904: 37-41. (100 entries. 1850-1901. General.)
- 1145 OSIMO, GIUSEPPINA. Di alcuni foraminiferi dell' eocene superiore di Celebes. Riv. ital. paleont. 14, 1908: 51-52. (18 entries. 1850-1907. Regional.)

- 1146 OSIMO, GIUSEPPINA. Studio critico sul genere *Alveolina* d'Orb. *Palaeont. ital.*, 15, 1909: 93-96. (102 entries. 1770-1909. General.)
- 1147 SACCO, FEDERICO. Sur la valeur stratigraphique des *Lepidocyclina* et des *Miogyssina*. *Soc. géol. France, Bull.* 4th ser. 5, 1905: 890-892. (45 entries. 1841-1905. Regional.)
- 1148 SCHELLWIEN, ERNST. Monographier der *Fusulinen*. Teil II. *Palaeontographica*, 56, 1909: 171-176. (151 entries. 1826-1909. General.)
- 1149 SILVESTRI, A. Forma italiana della "*Lingulina impressa*" Terquem. *Riv. ital. paleont.*, 13, 1907: 69-70. (20 entries. 1826-1906. Regional.)
- 1150 SILVESTRI, A. Lagenine terziarie italiane. *Soc. géol. ital., Boll.* 31, 1912: 175-180. (55 entries. 1839-1912. General.)
- 1151 SILVESTRI, A. Miliolidi trematoforate nell' eocene della terra d'Otranto. *Riv. ital. paleont.*, 14, 1908: 143-147. (56 entries. 1856-1908. Regional.)
- 1152 TRAUTH, FRIEDRICH. Das eozänvorkommen bei Radstadt im Pongau. *Akad. Wissensch. Wien., Denk.* 95, 1918: 269-273. (105 entries. 1846-1915. General.)
See 2060, 2404, 2872.
- FORESTS AND WATER.**
- 1153 GORTANI, M. La Foresta e le acque. *Giorn. geol. prat.* 12, 1914: 87-126. (580 entries. 1558-1913. General.)
- FOSSIL WOOD.**
- 1154 GOTHAN, W. Die fossilen hölzer von der Seymour- und Snow Hill-Insel. *Stockholm*, 1908, 33 pp. *Schwed. Südpolar Exp.* 1901-1903, *Wissenschaft. Ergeb.* 3, lief 8. (Literature, 30-31. 29 entries. 1864-1908. General.)
- 1155 KRÄUSEL, R. Die fossilen Koniferenhölzer. . . . *Paleontographica*, 62, 1916-1919: 264-273. (243 entries. 1840-1917. General.)
- FRANCE.**
- 1156 BERTRAND, LÉON. Étude géologique du nord des Alpes-Maritimes. *Paris*, 1896, 214 pp. *France. Serv. carte géol., Bull.* 56-t. 9. (List of works, 28-33. 87 entries. 1797-1896. Regional.)
- 1157 *BIGOT, A. Géologie [de la presqu'île de Cotentin]. In *Cherbourg et le Cotentin* [publ. à l'occasion du Congrès Ass. franç. avanc. sci.], *Cherbourg*, 1905: 1-26.
- 1158 BIGOT, A. Liste des principales publications relatives à la géologie de Basse-Normandie. *Soc. géol. France, Bull.* 4th ser. 4, 1904: 864-867. (60 entries. 1824-1904. Regional.)
- 1158a *BOUSSAC, JEAN. Études stratigraphiques sur le nummulitique alpin. *Paris*, 1912, 662 pp. *France. Serv. carte géol., Mém.* (Contains numerous bibliographies.)
- 1159 BÜCKING, H. Beiträge zur Geologie des oberen Breuschtals in den Vogesen. *Alsace Lorraine. Geol. Landesanst., Mitth.* 12, hft. 2, 1920: 363-364. (29 entries. 1826-1918. Regional.)
- 1160 BUREAU, E. Bassin houiller de la basse Loire. *Fasc. 1. Paris*, 1910, 443 pp. *France. Serv. top. souter., Études gîtes min.* (Bibl., 415-436. 304 entries. 1640-1907. Regional.)
- 1161 CHAPUT, E. Recherches sur les terrasses alluviales de la Loire et de ses principaux affluents. *Lyon, Univ. Ann.* I. 41, 1917: 285-300. (293 entries. 1827-1916. Regional.)
- 1162 COLLOT, L. Le Miocène des Bouches du-Rhône. *Soc. géol. France. Bull.* 4th ser. 12, 1912: 48-50. (75 entries. 1825-1911. Regional.)
- 1163 *COMBES, PAUL. Contribution à la bibliographie géologique et pré-historique du sol de Paris. *Bulletin de la bibliothèque et des travaux historiques de la Ville de Paris. fasc.* 6, 1913: 1-37.
- 1164 COUFFON, OLIVER. Le callovien du Chalet, commune de Montreuil-Bellay (M. & -L.). *Angers*, 1919, 245 pp. (List of works, 233-245. 243 entries. 1742-1918. Regional.)
- 1165 DAVY, L. Bibliographie géologique du nordouest de la France. *Soc. sci. nat. Ouest. Bull.*, (2d ser.) 3, 1903: 239-384; 4, 1904: 264-340; 5, 1905: 13-59. (449 entries. 1550-1902. Regional.)
- 1166 DAVY, L. Bibliographie géologie, minéralogique et paléontologique du nord-ouest de la France (Bretagne, Basse-Normandie, Maine, Anjou et Vendée). *Pre-mier supplément. Soc. sci. nat.*

*Not seen.

- Ouest. Bull. (2d ser) 8, 1908: 41-95. (ca 600 entries. 1632?-1907. Regional.)
- 1166a *DEHORNE, YVONNE. Les stromatoporoides des terrains secondaires. Paris, 1920, 170 pp. France. Serv. carte géol., Mém. (Index bibl., 147-161.)
- 1167 DE LA VAULX, MM. ROLAND, and MARTY, PIERRE. Nouvelles recherches sur la flore fossile des environs de Varennes (Puy-de-Dôme). Rev. gén. bot., 32, 1910: 365-368. (67 entries. 1856-1919. Regional.)
- 1168 DEFÉRET, [C]. Bassins tertiaires du Rhone. Int. Geol. Cong. VIII. Paris, 1900. Livr. guide xii: 29-32. (49 entries. 1855-99. Regional.)
- 1169 DOLLFUS, G. F. Les Marnes de Chenay, près Reims. Soc. géol. France, Bull. 4th sér. 12, 1912: 826-827. (14 entries. 1855-1909. Regional.)
- 1169a DOLLFUS, G. F. Trois excursions aux environs de Paris. Soc. géol. France, Bull. 3d ser. 28, 1900: 124-126, 139-140, 153-154. (68 entries. 1802-1900. Regional.)
- 1170 DONCIEUX, LOUIS. Monographie géologique et paléontologique des Corbières orientales. Lyon, Univ., Ann. I. 11, 1903: 13-22. (208 entries. 1737-1902. Regional.)
- 1171 FOURNIER, EUGÈNE. Sur les Terrains recontrés par la Galerie de Gardanne à la Mer et sur les conclusions que l'on peut en tirer relativement à la Tectonique de la Basse Provence. Soc. géol. France, Bull. 4th ser. 6, 1909: 116. (22 entries. 1880-1906. Regional.)
- 1171a *GARNAUD, P. J. Étude des sédiments et dépôts des eaux minérales de la Limagne d'Auvergne. Clermont-Ferrand, 1911, 82 pp. (Bibl., 77-80.)
- 1172 GIGNOUX, MAURICE. Sur les formations quaternaires des environs de Biot (Alpes Maritimes). Grenoble, Univ. Lab. géol. Trav. 11, fasc. 3, 1916-1917: 84. (13 entries. 1850-1915. Regional.)
- 1172a *GIRARDOT, ALBERT. Les premières études de Géologie en Franche-Comté, 1742-1850. Besançon, 1912. (Bibl. 225-261. 96 entries.)
- 1173 GIRAUD, JEAN. Études géologiques sur la Limagne (Auvergne)-France. Serv. carte géol., Bull. 87-t. 13 (1902-1903): 9-27. (335 entries. 1733-1902. Regional. Issued as thesis, University of Paris, 1902.)
- 1174 GLANGEAUD, PH. Monographie du volcan de Gravenoire près de Clermont-Ferrand. France. Serv. carte géol., Bull. 82-t. 12 (1900-01): 3-4. (31 entries. 1752-1900. Regional.)
- 1175 GLANGEAUD, PH. Les régions volcaniques du Puy-de-Dôme. France. Serv. carte géol., Bull. 123-t. 19 (1908-09): 171-172. (26 entries. 1890-1909. Regional.)
- 1176 *GONNARD, FERDINAND. De la minéralogie dans le département du Puy-de-Dôme depuis Lecoq et Bouillet jusqu'en 1908. Lyon, 1908, 47 pp.
- 1177 HAUG, ÉMILE. Les nappes de charriage de l'Embrunais et de l'Ubaye et leurs faciès caractéristiques. Soc. géol. France, Bull. 4th ser. 12, 1912: 15. (11 entries. 1892-1911. Regional.)
- 1178 HAUG, ÉMILE. La tectonique du massif de la Sainte-Baume. Soc. géol. France, Bull. 4th ser. 15, 1915: 116-118. (35 entries. 1864-1915. Regional.)
- 1179 HOMMEY, J., and CANEL, C. Notice géologique sur le Canton de Sées. Soc. géol. Normandie, Bull. 18, 1899: 91. (10 entries. 1837-95. Regional.)
- 1180 JOLY, HENRY. Études géologiques sur le Jurassique inférieur et moyen de la bordure Nord-Est du bassin de Paris. Nancy, 1908, 468 pp. (Bibl., 1-32. 568 entries. 1181-1907. Regional.)
- 1180a JOUKOWSKY, ÉTIENNE and FAVRE, JULES. Monographie géologique et paléontologique du Salive (Haute-Savoie). Soc. phys. Genève, Mém. 37, fasc. 4, 1913. 493-503. (212 entries. 1779-1913. Regional.)
- 1181 KERFORNE, FERNAND. Étude de la région silurique occidentale de la presqu'île de Crozon. Rennes, 1901, 234 pp. (List of works, 217-226. 172 entries. 1798-1900. Regional.)
- 1182 KILIAN, W. Contributions à l'histoire de la vallée du Rhône à l'époque pléistocène. Le défilé de Fort-de-l'Ecluse (Ain). Zeit. f. Gletscherk., 6, 1911-1912: 65-67. (47 entries. 1843-1911. Regional.)

*Not seen.

- 1183 KILIAN, W., and GIGNOUX, M. Les formations fluvio-glaciaires du Bas-Dauphiné. . . . Paris, 1911, 84 pp. France. Serv. carte géol. Bull. 129-t. 21, 1909-1910. (Bibl., 2-7. 73 entries. 1829-1911. Regional.)
- 1184 KILIAN, W., and RÉVIL, J. Études sur la période pléistocène (quaternaire) dans la partie moyenne du bassin du Rhône. 3me partie. Grenoble, Univ. Ann. 30, 1918: 308-311. (47 entries. 1787-1918. Regional.)
- 1185 LAUBY, ANT. Botanique du Cantal. Bio-bibliographie analytique suivie d'une liste des végétaux vivants et fossiles nouveaux pour cette region. Paris, 1903, 72 pp. (Bibl., 44-65. 328 entries. 1558-1902. Regional.)
- 1186 LAUBY, ANTOINE. Recherches paléophytologiques dans le Massif central. Paris, 1910, 398 pp. France. Serv. carte géol., Bull. 125-t. 20, 1909-1910. (Bibl., 37-57. 341 entries. 1755-1909. Regional. Issued as thesis of University of Paris, 1909.)
- 1187 LAURENT, LOUIS. Flore fossile des schistes de Menat (Puy-de-Dôme). Marseille, 1912, 245 pp. Marseille. Mus. hist. nat., Ann. Géol. 14. (Bibl., 9-19. 147 entries. 1855-1910. Regional.)
- 1188 LEMOINE, PAUL. Géologie du bassin de Paris. Paris, 1911, 408 pp. (Bibl., 349-377. 675 entries. 1804-1911. Regional.)
- 1189 LERICHE, MAURICE. Observations sur la Géologie du Cambrésis et Compte rendu de l'Excursion de la Société géologique du Nord aux environs de Busigny et de Prémont, le 20 juin 1909. Soc. géol. Nord, Ann. 38, 1909: 407-411. (54 entries. 1843-1909. Regional.)
- 1190 LEVY, A. MICHEL, L'Esterel. Étude stratigraphique, pétrographique et tectonique. Paris, 1912, 60 pp. France. Serv. carte géol., Bull. 130-t. 21, 1910-11. (Bibl., 59-60. 22 entries. 1841-1910. Regional.)
- 1191 LÉVY, A. MICHEL. Les terrains primaires du Morvan et de la Loire. France. Serv. carte géol., Bull. 120-t. 18 (1907-08): 283-288. (123 entries. 1840-1908. Regional.)
- 1192 LUGEON, MAURICE. Les dislocations des Bauges (Savoie). France. Serv. carte géol., Bull. 77-t. 11, 1900: 4-6. (39 entries. 1779-1898. Regional.)
- 1193 LUGEON, MAURICE. La région de la Brèche du Chablais (Haute-Savoie). Paris, 1896, 310 pp. France. Serv. carte géol., Bull. 49-t. 7, 1895-96. (Works, 3-5. 50 entries. 1779-1894. Regional.)
- 1194 MARGERIE, E. DE. La Géologie. La science Française. vol. 1. Paris, 1915: 247-264. (249 entries. 1746-1912. Regional.)
- 1195 MARTY, P. Bibliographie de la géologie et de la paléontologie végétale du Cantal. Marseille, Mus. hist. nat., Ann. 9, 1904-1905: 289-294. (79 entries. 1802-1904. Regional.)
- 1196 MATTE, H. Documents pour servir à la description géologique des Alpes Delphino-Savoisiennes. Soc. statist. Isère, Bull. 32, ser. 4, 6, 1902: 380-382. (28 entries. 1860-99. Regional.)
- 1196a *MERLE, ANT. Les gîtes minéraux et metallifères et les eaux minérales du département du Doubs. Besaçon. 1905. (Bibl. 5-14.)
- 1197 MEYER, OSKAR-ERICH. Zwischen Sixt und Barberine (die Berge vom Mont Buet bis zur Tour Salrière). Deutsch. u. oster. Alpenver., Zeit. 41, 1910: 132-136. (122 entries. 1772-1910. Regional.)
- 1198 MORAND, MADELEINE. Étude de la faune des calcaires valanginiens du Fontanil (Isère). Grenoble, Univ., Lab. géol., Trav. 10, fasc. 2, 1912-1913: 283-284. (20 entries. 1829-1910. Regional.)
- 1199 MÖLLER, F. T. Die Eisenerzlagertstätten von Rothau und Framont in Breuschthal (Vogesen). Alsace Lorraine. Geol. Landesanst., Mitth. 5, 1905: 417-418. (20 entries. 1751-1904. Regional.)
- 1199a OERTEL, WALTER. Stratigraphie und Tektonik der Gegend von St. Brais und Saulcy. N. J. f. Min., B. B. 36, 1913: 80-81. (24 entries 1870-1911. Regional.)
- 1200 OLBRY, A. Topographie souterraine du bassin houiller du Boulonnais ou bassin d'Hardinghen. Paris, 1904, 240 pp. France. Serv. top. souter., Études gîtes min. (Bibl. 219-228. 183 entries. 1768-1904. Regional.)

*Not seen.

- 1201 PAQUIER, V. Liste des publications relatives à la géologie du Diois et des Baronnies orientales. Grenoble, Univ. Ann. 12, 1900: 376-384. (100 entries. 1779-1900. Regional. Issued as thesis of University of Paris, 1900.)
- 1201a *PRIEM, F. Étude des poissons fossiles du bassin parisien. Paris, 1908, 144 pp. Publications des Annales de paléontologie. (Bibliographic notes.)
- 1201b PRUVOST, PIERRE. Introduction à l'étude du terrain houiller du Nord et du Pas-de-Calais. La faune continentale du terrain houiller du nord de la France. Paris, 1919. 584 pp. (Bibl., 557-574. 224 entries. 1854-1918. General.)
- 1202 RAMOND, G., DOLLET, AUG., and COMBES, PAUL. Étude géologique sur le Chemin de fer du Nord. . . . Soc. géol. France, Bull. 4th ser. 6, 1906: 574-575. (36 entries. 1822-1906. Regional.)
- 1203 RÉVIL, JOSEPH. Géologie des chaînes jurassiennes et subalpines de la Savoie. Chambéry, 1910, 626 pp. (Publications, 75-114. 546 entries. 1779-1908. Regional.)
- 1204 RITTER, Étienne. La bordure sud-ouest du Mont-Blanc les plis couchés du Mont-Joly et de ses attaches. Paris, 1897, 232 pp. France. Serv. carte géol., Bull. 60-t. 9. (List of works, 5-8. 58 entries. 1779-1896. Regional.)
- 1205 ROMAN, FRÉDÉRIC. Monographie de la faune lacustre de l'Éocène moyen. Lyon, Univ., Ann. I. 1, 1899: [43]. (15 entries. 1842-98. Regional.)
- 1206 ROMAN, FRÉDÉRIC. Recherches stratigraphiques et paléontologiques dans le Bas-Languedoc. Paris, 1897, 345 pp. (Bibl., 17-23. 123 entries. 1724-1896. Regional.)
- 1207 ROUX, C. Notice bibliographique sur plus de deux cents manuscrits inédits ou peu connus concernant pour la plupart l'histoire naturelle de la région lyonnaise. Soc. linn. Lyon, Ann. 52, 1905: 227-252. (143 entries. 1650-1902. Regional.)
- 1208 SION, JULES. Le Var supérieur. Étude de géographie physique. Paris, [1908], 96 pp. (Bibl., 5-11. 78 entries. 1797-1907. Regional.)
- 1209 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Liste des principales publications concernant les régions visitées par la société. Vosges. . . . *Its* Bull. 3d ser. 25, 1897: 916-919. (64 entries. 1833-97. Regional.)
- 1210 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . . à Laon, Reims, Mons, Bruxelles, Anvers. . . . Liste des principales publications relatives aux régions visitées. *Its* Bull. 4th ser. 12, 1912: 683-689. (123 entries. 1843-1912. Regional.)
- 1211 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . . à Nantes, Chalonnnes et Châteaubriant. Liste des principales publications relatives aux régions visitées. *Its* Bull., 4th ser. 8, 1908: 597-601. (85 entries. 1830-1907. Regional.)
- 1212 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . . à Poitiers, Saint-Maixent, Niort et Parthenay. Liste des principaux travaux relatifs à la Géologie de la région parcourue. *Its* Bull. 4th ser. 3, 1903: 789-793. (88 entries. 1804-1903. Regional.)
- 1213 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . . à Valence, Alais et Nîmes. . . . Liste des principales publications relatives à la région étudiée. *Its* Bull., 4th ser. 10, 1910: 861-862. (41 entries. 1854-1907. Regional.)
- 1214 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . . dans la Sarthe et dans le Mayenne (Évron, Sillé-le-Guillaume, Sablé, Laval) . . . Liste des principales publications relatives aux régions visitées. *Its* Bull., 4th ser. 9 1909: 551-557. (147 entries. 1827-1909. Regional.)
- 1215 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . . dans le Jura. . . . Bibliographie géologique. *Its* Bull. 4th ser. 11, 1911: 475-478. (82 entries. 1886-1911. Regional.)
- 1216 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . . dans les Alpes-maritimes. Liste des principaux travaux. . . . *Its* Bull., 4th ser. 2, 1902: 512-516, 520-525. (208 entries. 1780-1902. Regional.)
- 1217 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire. . . .

*Not seen.

- dans les Causses et dans les Cévennes . . . Bibliographie. *Its* Bull., 4th ser. 7, 1907: 565-566. (41 entries. 1846-1907. Regional.)
- 1218** SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire sur le versant méridional de la Montagne Noire. Liste des principales publications relatives à la région parcourue. *Its* Bull., 3d ser. 27, 1899: 608-612. (108 entries. 1833-99. Regional.)
- 1218a** *TERMIER, PIERRE. Les montagnes entre Briançon et Vallouise (écaillles briançonnaises, terrains cristallins de l'Eychauda, massif de Pierre-Eyraud, etc). Paris, 1903, 182 pp. France. Serv. carte géol., Mém. (Bibl., v-viii.)
- 1219** THEVENIN, ARMAND. Étude géologique de la bordure sud-ouest du Massif central. Bibliographie géologique du Rouergue occidental et des terrains Jurassiques de Bas-Quercy. France. Serv. carte géol. Bull., 95-t. 14 (1902-03): 185-189. (119 entries. 1806-1903. Regional.)
- 1219a** WATELIN, J. Le Pays de Brive et ses enveloppes naturelles. Paris, 1920. 184pp. (Bibl. 173-176. 70 entries. 1803-1919. Regional.)
- 1219b** Zeiller, R. La Paléobotanique. La science Française, 1. Paris, 1915: 276-288. (181 entries. 1815-1914. Regional.)
See 210, 224, 233, 455, 460, 463, 544, 821, 838, 963, 1074, 1143a, 1519, 1598, 1608, 1641, 1750, 1783, 2163, 2659, 2873.
See also ALSACE LORRAINE, etc.
- FRANCONIA.** See BAVARIA.
- FRENCH GUIANA.**
- 1220** LEVAT, E. D. Guide pratique pour la recherche et l'exploitation de l'or en Guyane française. Ann. mines, ser. 9, 13, 1898: 607-608. (36 entries. 1785-1898. Regional.)
See 2476.
- FROST ACTION.** See 1075.
- FULGURITES.**
- 1221** BARROWS, W. L. A fulgurite from the Raritan sands of New Jersey with an historical sketch and bibliography of fulgurites in general. Sch. Min. Quart., 31, 1910: 315-319. (60 entries. 1786-1909. General.)
- 1222** KNIBBS, G. H. Bibliography of fulgurites. Austral. Assoc. Adv. Sci., Rept. Sydney, 1898: 380-383. (48 entries. 1711-1896. General.)
- 1223** LACROIX, A. Sur les fulgurites exclusivement siliceuses du Sahara oriental et sur quelques fulgurites silicatées des Pyrénées. Soc. franç. min., Bull. 38, 1915: 188. (12 entries. 1790-1894. General.)
- FULLER'S EARTH.**
- 1224** MIDDLETON, JEFFERSON. Fuller's earth. U. S. Geol. Surv., Min. Res., 1914-II, 1916: 39-40. (36 entries. 1893-1913. Regional.)
See 705, 1738.
- FUNAFUTI.**
- 1225** ROYAL SOCIETY OF LONDON. The atoll of Funafuti. Borings into a coral reef and the results. Being the report of the coral reef committee of the Royal society. London, 1904, 428pp. (List of memoirs . . . 182-185. 54 entries. 1897-1903. Regional.)
- GABBRO.** See 1972, 2145, 2643.
- GALICIA.** See 377.
- GARNET.** See 94, 1903.
- GAS.** See OIL and GAS.
- GAS PRODUCERS.**
- 1226** FERNALD, R. H., and SMITH, C. D. Résumé de producer-gas investigations October 1, 1904-June 30, 1910. U. S. Bur. Mines. Bull., 13. (Bibl., 359-378. 514 entries. 1841-1910. General.)
- GASTROPODA.**
- 1227** BRÖSAMLEN, RICHARD. Beitrag zur Kenntnis der Gastropoden des schwäbischen Jura. Palaeontographica, 56, 1909: 319-321. (83 entries. 1824-1907. Regional.)
- 1228** DENINGER, KARL. Die Gastropoden der sächsischen Kreideformation. Beitr. Paläont. Oesterr.-Ung., 18, 1905: 33-35. (68 entries. 1846-1903. General.)
- 1229** DIETZ, EUGEN. Ein Beitrag zur Kenntnis der deutschen Zechsteinschnecken. Prussia. Geol. Landesanst., Jahrb. 30-I, 1911: 505-506. (43 entries. 1842-1906. Regional.)
- 1230** KAUNHOWEN, F. Die Gastropoden der Maestrichter Kreide. Geol. u. paläont. Abh., n. f. 4, hft. 1, 1897: 9-10. (62 entries. 1808-88. General.)
- 1231** PERVINQUIÈRE, L. Études de paléontologie tunisienne. II. Gastropodes et lamellibranches des terrains crétacés. Paris, 1912,

*Not seen.

- 352 pp. (Bibl., [iv]-xiv. 202 entries. 1807-1912. General.)
- 1232 ROUNDY, P. V. Original color markings of two species of Carboniferous gastropods. *Am. Journ. Sci.*, 4th ser. 38, 1914: 449-450 (11 entries. 1836-1912. Citations.)
- 1233 SIEBERER, KARL. Die Pleurotomarien des schwäbischen Jura. *Palaeontographica*, 54, 1907: 66-68. (51 entries. 1835-1903. Regional.)
- 1234 SPITZ, ALBRECHT. Die Gastropoden des karnischen Unterdevon. *Beitr. Paläont. Oesterr.-Ung.*, 20, 1907: 116-118. (74 entries. 1836-1906. General.)
- 1235 WOOD, ELVIRA. The phylogeny of certain Cerithiidae. *N. Y. Acad. Sci.*, Ann. 20, 1910: 86-92. (144 entries. 1757-1906. General.)

GEMS.

- 1236 CULIN, F. L., jr. Gems and precious stones of Arizona. Tucson, Arizona, 1916-1917, 7 pp. *Ariz. Univ. Bull.* 48. Min. tech. ser. 17. (10 entries. 1890-1912. General.)

See 510, 1006.

See also PRECIOUS STONES.

GEOCHEMISTRY.

- 1237 CLARKE, F. W. The data of geochemistry. Washington, 1908, 716 pp. *U. S. Geol. Surv., Bull.* 330. (Bibl., 170-171. 22 entries. 1864-1902.)
- 2d ed. 1911, 782 pp. (pp. 204-205). *Bull.* 491, 24 entries. 1864-1911.
- 3d ed. 1916, 821 pp. (pp. 215-216). *Bull.* 616, 28 entries. 1885-1915.
- 4th ed. 1920, 832 pp. (pp. 210-211). *Bull.* 695, 30 entries. 1864-1918.
- 1237a RØRDAM, K. Studier over udvalgte emner af den kemiske geologi og den kemiske agrogeologi. København, 1914, pp. 225-315. *Danske vidensk. selsk. Skrifter*, 11: 5. (Many footnote references.)
- See 1264, 2390, 2434, 2437, 2465, 2861.

GEODES.

- 1238 VAN TUYL, F. M. The origin of the geodes of the Keokuk beds. *Iowa Acad. Sci., Proc.* 19, 1912: 172. (5 entries. 1878-1908. General.)

GEOLOGIC FORMATION NAMES.

- 1239 KAYSER, EMANUEL. Lehrbuch der geologischen Formationskunde,

Ed. 2, Stuttgart, 1902, 625 pp. (Many footnote references.) Ed. 3, 1908, 741 pp.; Ed. 4, 1911, 798 pp.; Ed. 5, 1913, 852 pp.

- 1239a WEEKS, F. B. North American geologic formation names: bibliography, synonymy and distribution. Washington, 1902, 448 pp. *U. S. Geol. Surv., Bull.* 191.

GEOLOGICAL CLIMATES.

- 1240 BÄRDARSON, G. Traces of changes of climate and level at Húnaflói, northern Iceland. *In Die Veränderungen des Klimas . . . 11. internationalen geologen-kongr.* Stockholm, 1910, p. 352. (5 entries. 1772-1910. Regional.)
- 1241 BRÜCKNER, EDUARD. Postglaziale Klimaänderungen und Klimaschwankungen im Bereich der Alpen. *In Die Veränderungen des Klimas . . . 11. internationalen geologen-kongr.* Stockholm, 1910, p. 109. (7 entries. 1906-09. Regional.)
- 1242 ECKARDT, W. R. Das Klimaproblem der geologischen Vergangenheit und historischen Gegenwart. Braunschweig, 1909, 183 pp. (Literature, 176-183. 150 entries. 1881-1908. General.)
- 1243 LITERATUR über das spätquartäre Klima Schwedens zu den Abhandlungen Rutger Sernanders und Gunnar Anderssons. *In Die Veränderungen des Klimas . . . 11. Int. Geol. Cong.* Stockholm, 1910, pp. 295-301. (122 entries. 1826-1910. Regional.)
- 1244 NORDMANN, V. Post-glacial climatic changes in Denmark. *In Die Veränderungen des Klimas . . . 11. internationalen geologen-kongr.* Stockholm, 1910, pp. 326-328. (40 entries. 1902-09. Regional.)
- 1245 SCHULZ, AUGUST. Das Klima Deutschlands während der seit dem Beginne der Entwicklung der gegenwärtigen phanerogamen Flora und Pflanzendecke Deutschlands verflossenen Zeit. *Deutsch. geol. Gesell., Zeit.* 62, 1910: 115-116. (24 entries. 1894-1910. Regional.)
- 1246 STOLLER, J. Die Beziehungen der nordwestdeutschen Moore zum nacheiszeitlichen Klima. *Deutsch. geol. Gesell., Zeit.* 62, 1910: 187-189. (44 entries. 1883-1909. Regional.)

GEOLOGICAL TERMS. See 2652.

GEOLOGY.

- 1247 ANDRÉE, K. Die geologische Bedeutung des Wachstumsdrucks kristallisierender Substanzen. *Geol. Rundsch.*, 3, 1912: 7-9. (62 entries. 1847-1909. General.)
- 1247a CLELAND, H. F. Geology, physical and historical. New York, Cincinnati, 1916, 718 pp. (Contains bibliographies.)
- 1248 GEIKIE, Sir ARCHIBALD. Text-book of geology. 4th ed. 2 vols. London, 1903. (Works of reference, Vol. 1: 5-12. (120 entries. 1835-1901. General.)
- 1249 GRABAU, A. W. Principles of stratigraphy. N. Y., 1913, 1185 pp. (Bibl. at end of chapters. General.)
- 1250 HAUG, ÉMILE. Traité de géologie. I-II. Paris, 1907-1911. (Bibl. at end of chapters. General.)
- 1251 LAHEE, F. H. Field geology. N. Y. and London, 1916, 508 pp. (Bibl., 479-482. 81 entries. 1888-1915. General.)
- 1252 LAPPARENT, A. A. C. DE Traité de géologie. 5th ed. 3 vols. Paris, 1906. (Bibl. footnotes. General.)
- 1253 LETHAEA GEOGNOSTICA. Handbuch der Erdgeschichte mit Abbildungen der für die Formationen bezeichnendsten Versteinerungen . . . Stuttgart, 1876- . (Bibl. through text. General.)
- 1254 MARGERIE, EMM. DE. Catalogue des bibliographies géologiques. Paris, 1896, 733 pp. Congrès géologique international. 5^e session. Washington, 1891-6e session, Zürich, 1894. (3918 entries. 1726-1896. General.)
- 1255 *MOURLON, M. La documentation géologique. *Sci. et nat.*, Brux., 1, 1907: 169-172.
- 1256 PARK, JAMES. A text-book of geology. For use in mining schools, colleges, and secondary schools. London, 1914, 598 pp. (Bibl., 555-558. 113 entries. 1826-1912. General.)
- 1257 RIES, HEINRICH. Economic geology of the United States. N. Y. 1905, 435 pp. (References at end of chapters. Subject.)
- 1258 RIES, HEINRICH, and WATSON, T. L. Engineering geology. Ed. 1. N. Y., 1914, 672 pp. (References at end of chapters. General.)
- 1259 TARR, R. S. Economic geology of the United States with briefer mention of foreign mineral products. N. Y., 1900, 525 pp. (Literature, 457-464. 170 entries. 1870-93. Regional.)
- 1260 TARR, R. S. Syllabus for field and laboratory work in dynamic, structural, and physiographic geology (Geology I) at Cornell University. Ithaca, 1902, 152 pp. (Reference books and papers . . . 81-84. 41 entries. 1842-1902. General.)
- 1261 TYRRELL, G. W. Recent advances in science: Geology. *Sci. Prog.*, 14, 1919-20: 394-385. (21 entries. 1916-19. General. Beginning with Vol. 10, 1915 each volume contains the above section.)
- 1262 WALTHER, JOHANNES. Vorschule der Geologie. Eine gemeinverständliche Einführung und Anleitung zu Beobachtungen in der Heimat. 4th ed. Jena, 1910, 293 pp. (Literature for geological excursions, 191-252. ca 1400 entries. 1875-1906. Regional.)
- 1263 WHITLOCK, H. P. Books of reference on geology and paleontology. Congress of arts and science, Universal exposition, St. Louis, 1904, vol. 4, 1906: 757-759. (67 entries. 1794-1905. General.)
- 1263a WOODWARD, H. B. History of geology. N. Y., and London, 1911. 154 pp. (Bibl., 149-150. 37 entries. 1832-1910. General.)
- See also PART I. GENERAL BIBLIOGRAPHIES.
- GEOLOGY—STUDY AND TEACHING.
- 1264 GOSSNER, B. Neuere Ergebnisse der Anwendung physikalisch-chemischer Methoden auf Probleme der Geologie. *Geol. Rundsch.* 6, 1915: 218-220. (46 entries. 1906-14. General.)
- 1265 WAGNER, P. Die Geologie im Schulunterrichte. *Geol. Rundsch.*, 1, 1910, *Geol. unterricht.*, 109-116. (127 entries. 1902-10. General.)
- 1266 WAGNER, P. Geologie in der pädagogischen Presse 1911. *Geol. Rundsch.*, 3, 1912: 195-196. (37 entries. 1900-12. General.)
- 1267 WAGNER, P. Geologie in Schule und Leben. *Geol. Rundsch.*, 10, 1919: 234-237. (95 entries. 1914-19. General.)
- 1268 WAGNER, P. Die Schulgeologie in dem Jahren 1913 und 1914.

*Not seen.

- Geol. Rundsch., 7, 1916: 63-83. (72 entries. 1913-14. Footnotes.)
- 1269 WAGNER, P. Schulgeologische Jahresschau 1912. Geol. Rundsch., 4, 1913: 274-275. (31 entries. 1911-13. General.)
- GEOLOGY, MILITARY.** See MILITARY GEOLOGY.
- GEOMORPHOLOGY.** See PHYSIOGRAPHY.
- GEOPHYSICAL CONSTANTS.**
- 1270 ODDONE, EMILIO. Determinazioni dinamiche del modulo di elasticità di Young delle rocce. Soc. geol. ital., Boll. 30, 1911: 1044-1047. (42 entries. 1848-1911. General.)
- GEOPHYSICS.** See 973.
- GEORGIA.**
- 1271 JOHNSON, D. W. Drainage modifications in the Tallulah District. Boston Soc. Nat. Hist., Proc. 33, 1906-07: 247-248. (19 entries. 1892-1905. Regional.)
See 315, 421, 655, 699, 707, 859, 1069, 1319, 1744.
- GERMAN SOUTHWEST AFRICA.** See SOUTHWEST PROTECTORATE.
- GERMANY.**
- 1272 BERENDT, G., and others. Neuere Forschung auf dem Gebiete der Glacialgeologie in Nord-deutschland erläutert an einigen Beispielen . . . Prussia. Geol. Landesanst., Jahrb. 18, 1898: 68-70, 87-88, 111-112, 128-129. (91 entries. 1824-98. Regional.)
- 1273 BRUHNS, W. Die nutzbaren Mineralien und Gebirgsarten im Deutschen Reiche . . . Berlin, 1906, 859 pp. (Literature, [710]-760. 1016 entries. 1873-1906. Regional.)
- 1274 EINECKE, G., and KÖHLER, W. Die Eisenerzvorräte des Deutschen Reiches. Berlin, 1910, 766 pp. Arch. Lagerstättenf. I. (Bibl. through text. 666 entries. 1805-1910. Regional.)
- 1274a GEOLOGISCHE Literatur Deutschlands: herausg. von der Deutschen geologischen Landesanstalt. A. Jährlicher Literatur bericht. Berlin, 1907-1911. (1909-13. Regional.)
- 1275 HARBORT, E. Die Fauna der Schaumburg-Lippe'schen Kreidemulde. Berlin, 1905, 112 pp. Prussia. Geol. Landesanst., Abh. n. f. 45. (Literature, 102-109. 151 entries. 1812-1905. Regional.)
- 1276 KAISER, ERICH. Die geologische und mineralogische Literatur des Rheinischen Schiefergebirges und der angrenzenden Gebiete. Naturh. Ver. preuss. Rheinl., Sitz. F. 1903-13. 1887-1900, 1902: 1-131. 1810 entries. 1907-1908, 1909: 1-42. 469 entries. 1909 1910: 1-23. 248 entries. 1910 1911: 1-20. 237 entries. 1911 1912: 1-24. 294 entries. 1912 1913: 1-16. 180 entries. (3238 entries. 1907-12. Regional.)
- 1277 KEILHACK, K., and ZIMMERMANN, E. Verzeichniss von auf Deutschland bezüglichen geologischen Schriften und Karten-Verzeichnissen . . . Berlin, 1897, 108 pp. Prussia. Geol. Landesanst. Abh. n. f. 26. (992 entries. 1716-1897. Regional.)
- 1278 LEPSIUS, RICHARD. Geologie von Deutschland und den angrenzenden Gebieten. 1-3 teil. Leipzig, 1887-1913. (Many footnote references.)
- 1279 LINSTOW, O. v. Salzflora und Tektonik in Anhalt, Sachsen und Brandenburg. Prussia. Geol. Landesanst., Jahrb. 31-II, 1913: 35-37. (41 entries. 1855-1909. Regional.)
- 1280 MEYER, H. L. F. Frankenberger Zechstein und grobklastische Bildungen an der Grenze Perm-Trias. Prussia. Geol. Landesanst., Jahrb. 31-I, 1913: 384-390. (113 entries. 1850-1909. Regional.)
- 1281 PAECKELMANN, W. Das Oberdevon des Bergischen Landes. Berlin, 1913, 356 pp. Prussia. Geol. Landesanst., Abh. n. f. 70. (Literature, 15-25. 148 entries. 1791-1912. Regional.)
- 1281a *RHINE PROVINCE. K. OBERBERGAMT, BONN. Beschreibung des bergreviers Düren. Bonn, 1902, 250 pp. (Geol. litteratur, 41-48.)
- 1282 SCHMIDT, R. R. Der diluviale vorzeit Deutschlands. Stuttgart, 1912, 283 pp. (Bibl. through text. Regional.)
- 1283 SCHÜTZE, E. Die geologische und mineralogische Literatur des nördlichen Harzvorlandes. Naturw. Ver. Magdeburg, Jahresb. u. Abh. 1900-07. 1900-1901, nos. 1-119. 1900-1902; 105-143.

*Not seen.

- 1902-1903, nos. 120-553. 1902-1904: 37-135.
1904-1905, nos. 554-925. 1904-1907: 1-120. (925 entries. 1900-05. Regional.)
- 1284 SCHÜTZE, E. Verzeichnis der mineralogischen, geologischen urgeschichtlichen und hydrologischen Litteratur von Württemberg, Hohenzollern und den angrenzenden Gebieten. Beilage zu Ver. Naturk. Württ., Jahresh. 58, 1902; 59, 1903: 39-67; 60, 1904: 69-112; 62, 1906: 113-163; 64, 1908: 165-251, I-VI. (1991 entries. 1890-1905. Regional.)
- 1285 STILLE, HANS. Die kimmerische (vorcretacische) Phase der saxonischen Faltung des deutschen Bodens. Geol. Rundsch., 4, 1913: 362-364. (42 entries. 1904-11. Regional.)
- 1286 STOLLER, J. Beiträge zur Kenntnis der diluvialen Flora (besonders Phanerogamen) Norddeutschlands. II. Lauenburg a Elbe (Kuhgrund). Prussia. Geol. Landesanst., Jahrb. 32-I, 1913: 109-110. (23 entries. 1766-1909. Regional.)
See 5, 727b, 1245, 1246, 1518, 1519, 1540, 1557, 1590, 1631, 1641, 1793, 1796, 2060, 2061, 2082, 2119, 2154, 2188, 2214, 2217, 2239, 2380, 2527, 2663, 2789.
See also under political subdivisions.
- GINKGO. See 2517.
- GLACIAL DEPOSITS.
- 1287 KUMM, AUGUST. Die Entstehung der Eindrücke in Geröllen. Geol. Rundsch., 10, 1919: 183-187. (112 entries. 1785-1918. General.)
- 1287a *NORTON, H. B. The drifts and other problems. Minneapolis, 1913, 163 pp. (Bibl., 9-10.)
- 1288 REAGAN, A. B. Summary of glacial literature relating to glacial deposits. Kansas Acad. Sci., Trans. 21-I, 1907: 86-110. (17 entries. n. d. General.)
See 1675, 1834, 2789, 2796, 2800.
- GLACIAL EPOCH.
- 1289 *BAKER, F. C. The life of the Pleistocene or glacial period as recorded in the deposits laid down by the great ice sheets. Urbana, 1920, 476 pp. Univ. Illinois Bulletin, 17, no. 41. (Bibl. 404-448.)
- 1289a ENQUIST, F. Die glaziale Entwicklungsgeschichte nordwest Skandinavien. Stockholm, 1918, 142 pp. Sweden. Syer. geol., Undersök., C. 285. Årsbok 12 (1918) no. 2. (Literatur., 137-142.)
- 1289b *REINHARD, A. L. Beiträge zur Kenntnis der Eiszeit im Kaukasus. Leipzig und Berlin, 1914, 113 pp. Geogr. Abh., n. f., hft. 2.
- 1289c SEMPER, M. Das Klimaproblem der Vorzeit. Geol. Rundsch., 1, 1910, Besprech., 57-60. (70 entries. -1909. General.)
- 1290 UPHAM, WARREN. Time divisions of the Ice Age. Vict. Inst., Journ. 33, 1901: 404. (13 entries. 1847-94. General.)
- 1291 WRIGHT, G. F. The ice age in North America and its bearings upon the antiquity of man. Oberlin, Ohio, 1911, 763 pp. (Bibl., 711-741. ca 700 entries. n. d. General.)
See 339, 341, 941, 942, 1018, 1032, 1059, 1104, 1272, 1361, 1391, 1427c, 1438, 1673, 1679, 1729, 1808, 1834, 1835a, 1853, 1872, 1881, 1882, 1883, 1884, 1886, 1887, 1911, 1944, 1976, 1999, 2027, 2028, 2237, 2238, 2396, 2438, 2506, 2512b, 2512c, 2512d, 2543, 2544, 2559, 2562, 2563, 2567, 2570, 2571, 2590, 2599, 2600, 2796.
See also PLEISTOCENE.
- GLACIAL EROSION. See 1073, 1074.
- GLACIAL LAKES. See 2024.
- GLACIATION. See 1073, 1074, 1944, 2779.
- GLACIERS.
- 1292 ANDREWS, E. C. The geographical significance of floods, with especial reference to glacial action. Linnean Soc. N. S. W., Proc. 32, 1907: 832-834. (31 entries. 1883-1907. General.)
- 1293 CHAMBERLIN, T. C. A contribution to the theory of glacial motion. Chicago, 1904, 16 pp. Decennial publications of Univ. of Chicago, 1st ser. Vol. 9. (Bibl., 15. 21 entries. 1840-97. General.)
- 1294 COMMISSION INTERNATIONALE des glaciers. Les variations périodiques des glaciers. In Arch. sci. phys. nat. 4th ser.
II. Report, 1896; by F. A. Forel and Leon du Pasquier. v. 4, 1897: 243-245.
III. Report, 1897; by E. Richter. v. 6, 1898: 22-25.
IV. Report, 1898; by E.

*Not seen.

- Richter. v. 8, 1899: 85-115.
- V. Report, 1899. v. 10, 1900: 1-20.
- VI-VIII. Report, 1900-02; by S. Finsterwalder and E. Muret. v. 12, 1901: 1-27; v. 14, 1902: 1-21; v. 15-16, 1903: 1-35.
- IX-X. Report, 1903-04; by H. F. Reid and E. Muret. v. 18, 1904: 1-36; v. 20, 1905: 62-74, 169-190.
- In Zeit. f. Gletscher-kunde.*
- XI. Report, 1905; by H. F. Reid and E. Muret. v. 1, 1906-07: 165, 172, 174, 179-180.
- XII-XVII. Report, 1906-11; by Ed. Brückner and E. Muret. v. 2, 1907-08: 165-166, 168, 176, 184-185; v. 3, 1908-09: 165-166, 168, 175, 182; v. 4, 1909-1910: 162, 165, 167, 172, 174, 175; v. 5, 1910-1911: 178, 181, 182, 189, 192, 202; v. 6, 1911-12: 82, 85-86, 89, 99, 103; v. 7, 1912-13: 38, 42, 44.
- XVIII-XIX. Report, 1912-13: by Charles Rabot and P. L. Mercanton. v. 8, 1913-14: 44, 47-48, 49, 60; v. 9, 1914-15: 46, 50-51, 53, 59. (1890-1913. General.)
- 1295 HESS, HANS. *Die Gletscher. Braunschweig, 1904, 426 pp. (Literature, 408-417. 231 entries. 1830-1903. General.)*
- 1296 HOBBS, W. H. *Characteristics of existing glaciers. N. Y., 1911, 301 pp. (References following each chapter. 492 entries. 1840-1910. General.)*
- 1297 RABOT, CHARLES. *Les variations de longueur des glaciers dans les régions arctiques et boreales. Résumé des observations relatives aux glaciers du Spitzberg. Arch. sci. phys. nat., 4th ser. 8, 1899: 164-169. (65 entries. 1628-1899. Regional.)*
See 126, 153, 176, 248, 784, 2506.
- GLASS and GLASS SANDS.**
- 1298 PETTKE, C. R. *Glass manufacture and the glass sand industry of Pennsylvania. Harrisburg, Pa., 1919, 278 pp. Penna. Geol. Surv., Rept. 12. (Bibl., 264-270. 129 entries. 1849-1915. General.)*
- 1299 RICHARDSON, C. H. *The glass sands of Kentucky. Frankfort, Ky., 1920, 149 pp. Ky. Geol. Surv., ser. 6, vol. 1. (Bibl., 139-145. 135 entries. 1869-1919. General.)*
See 2382.
- GLAUCOPHANE.** *See 601.*
- GOLD.**
- 1300 [HATCH, F. H., and CORSTORPHINE, G. S.] *Papers dealing with the origin of gold in conglomerates [Witwatersrand]. Geol. Soc. S. Afr., Proc. 8, 1906: xxviii. (16 entries. 1888-1903. Regional.)*
- 1301 KEMP, J. F. *Geological occurrence and associates of the telluride gold ores. Min. Ind., 1897: 295-320. (General. Footnotes.)*
- 1302 LAZAREVIC, M. *Die Propylitisierung Kaolinisierung und Verkieselung und ihre Beziehung zu den Lagerstätten der propylitischen jungen Gold-Silvergruppe. Zeit. f. prak. Geol., 21, 1913: 345. (29 entries. 1857-1912. General.)*
- 1303 SEDERHOLM, J. J. *Om guildindustrin i in- och utlandet, dess betingelser och utvecklingsmöjligheter. Med. indust. Finland, 32, 1902: 70-71. (25 entries. 1877-1901. Regional.)*
- 1304 U. S. GEOLOGICAL SURVEY. *Publications of the . . . on gold, silver, copper, lead and zinc in the Central States. Its Min. Res. 1914-I, 1916: 123-124. (28 entries. 1896-1914. Regional.)*
- 1305 U. S. GEOLOGICAL SURVEY. *Survey publications [on gold, silver, copper, lead, and zinc mines of the Eastern States]. Its Min. Res. 1914-I, 1916: 161-163. (67 entries. 1883-1914. Regional.)*
See 124, 531, 569, 589a, 590, 782, 791, 950a, 950b, 1220, 1406, 1415, 1488, 1740a, 1816, 1867, 1868, 1921, 1936, 1964, 1966, 1983, 1989, 2020, 2025, 2029, 2059, 2345, 2471, 2490. 2646. 2648

- 2669, 2692, 2788, 2822, 2825a, 2826, 2827, 2831, 2835, 2876a, 2877.
- GOLD DREDGING.**
- 1306 JANIN, CHARLES. Gold dredging in the United States. Washington, 1918, 226 pp. U. S. Bur. Mines, Bull. 127. (Bibl., 212-216. 86 entries. 1898-1916. Select.)
- 1307 JENNINGS, HENNEN. The history and development of gold dredging in Montana. Pan-Am. Sci. Cong., Wash., D. C., Proc. 2d, Sect. VII, 1917: 1028-32. (91 entries. 1898-1915. General.)
- GONDWANA.** See PERMIAN; PERMO-CARBONIFEROUS.
- GONIATITES.**
- 1308 HAUG, ÉMILE. Études sur les Goniatites. Soc. géol. France. Mém. Pal. 18, 1898: 6-9. (67 entries 1832-97. General.)
- 1309 SMITH, J. P. The Carboniferous Ammonoids of America. Washington, 1903, 211 pp. U. S. Geol. Surv., Mon. 42. (Bibl., 147-150. 86 entries. 1808-1901. Regional.)
- 1310 WEDEKIND, R. Die Genera der Palaeoammonoidea (Goniatiten). Palaeontographica, 62, 1916-1919: [175]-178. (78 entries. 1809-1916. General.)
- GOSLARITE.**
- 1311 ALVAREZ, NAZARIO. La goslarita de "Capillitas" (Provincia de Catamarca). Buenos Aires, 1916, 9 pp. Argentine Rep. Dir. gen. min., Bol. D 2. (Bibl., 9. 11 entries. 1899-1915. General.)
- GOTHLANDIAN.** See 1334, 2557.
- GOTLAND.** See SWEDEN.
- GRAND CANYON.**
- 1312 DAVIS, W. M. An excursion to the Grand Canyon of the Colorado. Harvard Univ. Mus. Comp. Zool., Bull. Geol. ser. 5, no. 4, 1901: 197-200. (46 entries. 1861-1900. Regional.)
- 1313 NOBLE, L. F. Contributions to the geology of the Grand Canyon, Arizona. Am. Journ. Sci., 4th ser. 29, 1910: 386, 528. (15 entries. 1882-1908. Regional.)
See 294.
See also ARIZONA.
- GRANITE.**
- 1314 DALE, T. N. The chief commercial granites of Massachusetts, New Hampshire and Rhode Island. Washington, 1908. 228 pp. U. S. Geol. Surv., Bull. 354. (Bibl., 215-217. 46 entries. 1883-1907. General.)
- 1315 DALE, T. N. The granites of Maine. With an introduction by George Otis Smith. Washington, 1907, 202 pp. U. S. Geol. Surv., Bull. 313. (Bibl., 184-186. 44 entries. 1872-1906. General. Text-book references on granite and black granite, p. 62, 7 entries, 1891-1905.)
- 1316 DALE, T. N. The granites of Vermont. Washington, 1909, 138 pp. U. S. Geol. Surv., Bull. 404. (Bibl., 127-129. 59 entries. 1872-1909. General. Also issued in Report of the State Geologist . . . of Vermont 1909-10. 7th of the series, pp. 193-195.)
- 1317 OXAAL, JOHN. Norsk granit. Kristiania, 1916, 220 pp. Norges geol. Undersök., 76. (Literature, 204-207. 72 entries. 1879-1916. General.)
- 1318 TAYLOR, C. H. Granites of Oklahoma. Norman, 1915, 108 pp. Okla. Geol. Surv., Bull. 20. (Bibl., 106-108. 38 entries. 1874-1911. General.)
- 1319 WATSON, T. L. Granites of the southeastern Atlantic states. Washington, 1910, 282 pp. U. S. Geol. Surv., Bull. 426. (Bibl., 272-274. 56 entries. 1874-1909. Regional.)
See 378, 426, 1159, 1384, 2145, 2488, 2555.
- GRANITE PORPHYRY.** See 2145.
- GRAPHITE.**
- 1320 BASTIN, E. S. Graphite. U. S. Geol. Surv., Min. Res. 1914-II, 1916: 168-174. (92 entries. 1892-1911. Select.)
- 1321 BASTIN, E. S. Graphite [Ceylon]. U. S. Geol. Surv., Min. Res. 1911-II, 1912: 1102-03. (20 entries. 1899-1909. Select.)
- 1322 BASTIN, E. S. Graphite. Selected bibliography. U. S. Geol. Surv., Min. Res., 1908-II, 1909: 736-738. (40 entries. 1881-1909. Select.)
- 1323 CIRKEL, FRITZ. Graphite, its properties, occurrence, refining and uses. Ottawa, 1907, 307 pp. Canada Dept. Mines., Mines Br. (Bibl., 287-289. 41 entries. 1863-1904. General.)
- 1324 MILLER, B. L. The geology of the Graphite deposits of Pennsylvania. Econ. Geol., 7, 1912: 775-777. (24 entries. 1905-11. Regional.)
- 1325 MILLER, B. L. Graphite deposits of Pennsylvania. Harrisburg, 1912, 147 pp. Penna. Geol. Surv.,

- Rept. 6. (Bibl., 129-140. 82 entries. 1825-1911. General.)
- 1326 NOVARESE, V. I giacimenti di grafite delle Alpi Cozie. Italy. Com. geol., Boll. 29, 1898: 35-36. (22 entries. 1835-95. Regional.)
- 1327 SPENCE, H. S. Graphite. Ottawa, 1920, 202 pp. Canada. Dept. Mines, Mines Br. no. 511. (Bibl., 195-196. 52 entries. 1862-1919. Regional.)
See 1740a.

GRAPTOLITES.

- 1328 ELLES, G. L., and WOOD, E. M. R. A monograph on British graptolites. London, 1901-18, 539 + clxxi pp. Palaeont. Soc. Publ. (History of research, i-clxii. 363 entries. 1727-1913. General.)
- 1329 HADDING, ASSAR. Undre dicellograptusskiffern i Skåne jämte några därmed ekvivalenta bildningar. Lund, 1913, 90 pp. Lunds Univ. årssk., n. f. Afd. 2, Bd. 9, nr. 15. (88 entries. 1826-1913. General.)
- 1330 KIRSTE, ERNST. Die Graptolithen des Altenburger Ostkreises. Mitth. Osterlande, n. f. 16, 1919: 61-66. (135 entries. 1771-1917. General.)
- 1331 RUEDEMANN, RUDOLF. Graptolites of New York. 2 vols. Albany, 1904-1908. N. Y. State Mus., Mem. 7, 11. (References, I: 459-466. II: 140-144. 233 entries. 1724-1906. General.)
- 1332 RUEDEMANN, RUDOLF. Synopsis of recent progress in the study of graptolites. Am. Nat., 32, 1898: 15-16. (33 entries. 1865-98. General.)
- 1333 WIMAN, CARL. Über die Graptolithen. Upsala Univ., Bull. Geol. Inst. 2, pt. 2, 1895: 240-252. (190 entries. 1724-1895. General.)

GRAVELS. See SANDS and GRAVELS.

GREAT BRITAIN.

- 1334 EVANS, J. W., ed. The British Isles by P. G. H. Boswell, and others. Heidelberg, 1917, 354 pp. Handb. Reg. Geol., 20. (General Bibl. by J. W. Evans, 341-343. 783 entries. 1823-1915. Regional. Other bibliographies through text.)
- 1335 HORWOOD, A. R. Bibliography of works referring to the flora and fauna of the Trias (Keuper) 1826-76 . . . Brit. Assoc. Adv. Sci. Rept. (Dublin), 1908: 281-

282. (33 entries. 1826-76. Regional.)
See 627, 1117, 1368, 1370, 1371, 1641, 2273.
See also ENGLAND, SCOTLAND, WALES.

GREAT LAKES. See 1956, 2180.

GREECE.

- 1336 DEPRAT, JACQUES. Étude géologique et pétrographique de l'île d'Eubrée. Besançon, 1904, 230 pp. (Bibl., 24-26. 36 entries. 1835-1903. Regional.)
- 1337 DEPRAT, JACQUES. Note sur la géologie du massif du Pélion . . . Soc. géol. France, Bull. 4th ser. 4, 1904: 338. (21 entries. 1880-1904. Regional.)
- 1338 RENZ, CARL. Geologische Exkursionen auf der Insel Leukas (Santa Maura). Deutsch. geol. Gesell., Zeit. 63, 1911, Monatsb. 292. (11 entries. 1905-11. Regional.)
- 1339 RENZ, CARL. Geologische Forschungen in Akarnanien. N. J. f. Min., B. B. 32, 1911: 398-399. (16 entries. 1905-11. Regional.)
See 130, 1007, 1590, 1641.

GREENLAND.

- 1340 BÖGGILD, O. B. Grønland. Heidelberg, 1917, 38 pp. Hand. reg. Geol., 21. (Literature, 34-37. 80 entries. 1819-1915. Regional.)
- 1341 BÖGGILD, O. B. Mineralogia Groenlandica. Kjøbenhavn, 1905, 265 pp. Med. Grønland. 32. (Regional. Complete literature given through the text. 162 minerals listed. Under each mineral there follows a geographically arranged list of localities, and under each locality is found a list of the literature.)
- 1342 KOCH, LAUGE. Stratigraphy of northwest Greenland. Dansk. geol. foren., Meddel. 5, nr. 17, 1920: 76-68. (29 entries. 1819-1918. Regional.)
- 1343 RAVN, J. P. J. De marine kridtaflejringer i Vest-Grønland og deres fauna. Med. Grønland. 56, 1918: 365. (20 entries. 1839-1915. Regional.)
- 1344 RAVN, J. P. J. On Jurassic and Cretaceous fossils from north-east Greenland. Med. Grønland, 45, 1912: 496-498. (50 entries. 1829-1910. Regional.)
See 907, 1451.

GROUND ICE.

- 1345 LEFFINGWELL, E. DE K. The Canning River region northern

Alaska. U. S. Geol. Surv., Prof. Paper 109, 1919: 242-243. (58 entries. 1815-1913. General.)

GUATEMALA.

- 1346 SAPPER, KARL. Geschwistervulkane in Guatemala. *Zeit. f. Vulkan.*, 4, 1918: 13-14. (20 entries. 1870-1913. Regional.)

GUMBOTIL.

- 1347 KAY, G. F., and PEARCE, J. N. The origin of gumbotil. *Journ. Geol.*, 28, 1920: 89-125. (24 entries. 1879-1918. Footnotes.)

GYPSUM.

- 1348 BURCHARD, E. F. Gypsum. U. S. Geol. Surv., Min. Res. 1910-II, 1911: 731-733. (50 entries. 1895-1911. General.)
- 1349 COLE, L. H. Gypsum in Canada its occurrence, exploitation, and technology. Ottawa, 1913, 256 pp. Canada Dept. Mines. Mines Br. no. 245. (Bibl., 165-179. 94 entries. 1849-1911. General.)
- 1350 CULIN, F. L., jr. Gypsum. Tucson, Arizona, 1915-16, 8 pp. Ariz. Univ. Bull. 19. Min. tech. ser. 10. (16 entries. 1888-1914. General.)
- 1351 GRIMSLEY, G. P. The gypsum of Michigan and the plaster industry. Lansing, 1904, 246 pp. Mich. Geol. Surv., 9, pt. 2. (Bibl., 232-241. 147 entries. 1792-1903. General.)
- 1352 GRIMSLEY, G. P., and BAILEY, E. H. S. Special report on gypsum and gypsum cement plasters. Topeka, 1899, 183 pp. Kansas Geol. Surv., Vol. 5. (Bibl., 174-178. 107 entries. 1792-1897. Regional.)
- 1353 NEWLAND, D. H., and LEIGHTON, HENRY. Gypsum deposits of New York. Albany, 1910, 94 pp. N. Y. State Mus., Bull. 143. (Bibl., 89-90. 32 entries. 1837-1910. Regional.)
- 1354 PARSONS, A. L. Notes on the gypsum industry in New York. N. Y. State Mus., Ann. Rept. 57-I, 1905: 156-157. (27 entries. 1839-1902. Regional. Also issued in 23rd Report of State Geologist 1903, 1904, pp. 156-157.)
- 1355 STONE, R. W., and others. Gypsum deposits of the United States. Washington, 1920, 326 pp. U. S. Geol. Surv., Bull. 697. (Bibl., 309-316. 175 entries. 1837-1919. Regional.)
- See 577, 587a, 1903.

HANOVER.

- 1356 HAARMANN, ERICH. Die geologischen Verhältnisse des Piesberg-Sattels bei Osnabrück. Prussia. Geol. Landesanst., Jahrb. 30-I, 1911: 54-58. (88 entries. 1782-1908. Regional.)
- 1357 LINSTOW, O. v. Die organischen Reste der Trias von Lüneburg. Prussia. Geol. Landesanst., Jahrb. 24, 1907: 161-164. (87 entries. 1612-1904. Regional.)
- 1358 LÖWE, FRITZ. Das Wesergebirge zwischen Porta- und Süntelgebiet. N. J. f. Min., B. B. 36, 1913: 206-213. (145 entries. 1830-1909. Regional.)
- 1359 OERTEL, WALTER. Die geologischen Verhältnisse des Deister- und Süntelgebietes der Gegend von Lauenau. Niedersäch. geol. Ver., Jahrb. 5, 1912: 103-104. (22 entries. 1837-1910. Regional.)
- 1360 SCHOLZ, ERICH. Über die geologischen Verhältnisse des Süntel und anstossenden Wesergebirges. Niedersäch. geol. Ver., Jahrb. 1, 1908: 111-112. (29 entries. 1836-1907. Regional.)
- 1361 SIEBS, AUGUST. Die Sedimentär-geschiebe im Gebiet zwischen Unterweser und Unterelbe. Naturw. Ver. Schles.-Holstein., Schr. 17, 1920: 91-92, 96-102. (105 entries. 1862-1916. Regional.)
- 1362 STILLE, HANS. Das tektonische Bild des Benthers Sattels. Niedersäch. geol. Ver., Jahrb. 7, 1914: 272-275. (58 entries. 1839-1913. Regional.)
- #### HARZ MOUNTAINS.
- 1363 BODE, ARNOLD. Die stratigraphische Erforschung des Oberharzes. In Festschrift Adolf v. Koenen . . . Stuttgart, 1907: 467-470. (70 entries. 1620-1905. Regional.)
- 1364 BORN, AXEL. Die geologischen Verhältnisse des Oberdevons im Aeketal (Oberharz.) N. J. f. Min., B. B. 34, 1912: 555-557. (54 entries. 1832-1908. Regional.)
- 1365 FREY, G. Das südliche Harzvorland. Ein Kapitel aus einer Landeskunde. In Festband Albrecht Penck. Stuttgart, 1918: 158-159. (21 entries. 1875-1915. Regional.)
- 1366 SCHULZE, ERWIN. Repertorium der geologischen Litteratur über das Harzgebirge. Berlin, 1912, 601 pp. Geologische Literatur

- Deutschlands. B. (1697-1911. Regional.)
- 1366a STAHL, ALFRED. Die gänge des Oberharzes und ihre Beziehungen zur Tektonik des Ganggebietes. Arch. Lagerstättenf., 27, 1920: 1-2. (42 entries. 1785-1920. Regional.)
See 1283.
See also SAXONY PROVINCE.
- HARZBURGITE.**
- 1367 FROMME, J. Über die im Harzburgit bei Harzburg aufsetzenden Gänge und ihre Beziehungen zum Nebengestein. Centralb. f. Min., 1920: 159-160. (24 entries. 1854-1915. General.)
- HEATHS.** See MOORS AND HEATHS.
- HEBRIDES.**
- 1368 BAILEY, E. B. The Islay anticline (inner Hebrides). Geol. Soc. London. Q. J., 72, 1916: 159. (14 entries. 1819-1911. Regional.)
See 1334, 2410a, 2411, 2417, 2419, 2424a, 2425a.
- HEMATITE.**
- 1369 KLEINFELDT, ERNST. Studien am Eisenglanz von Dognacska. N. J. f. Min., B. B. 24, 1907: 325-326. (15 entries. 1774-1905. Regional.)
- 1370 SIBLY, T. F. The haematites of the Forest of Dean and south Wales. London, 1919, 93 pp. Gt. Brit. Geol. Surv., Spec. Repts. Min. Res. X-Iron Ores. (List of works, 87-88. 20 entries. 1858-1910. Regional.)
- 1371 SMITH, BERNARD. Iron ores: haematites of west Cumberland, Lancashire and the Lake district. London, 1919, 182 pp. Gt. Brit. Geol. Surv., Spec. Repts. Min. Res. VIII. (Bibl., 48-50. 55 entries. 1847-1913. Regional.)
See also IRON ORES.
- HERZEGOVINA.** See JUGO-SLAVIA.
- HESSE.**
- 1372 BEETZ, WERNER. Beiträge zur Tektonik und Stratigraphie des Lauterbacher Grabens. Ver. f. Erdk. Darmstadt, Notizb. 4, hft. 33, 1912: 123-126. (50 entries. 1834-1912. Regional. Issued as thesis, Univ. of Giessen, 1913.)
- 1372a *KLEMM, GUSTAV. Führer bei geologischen Exkursionen im Odenwald. Berlin, 1910, 248 pp. (Literaturnachweise, 233-237.)
- 1372b SCHÖPPE, W. Der Holzpeller Gangzug. Berlin, 1911, 96 pp. Arch. Lagerstättenf., 3. (Literature, [1]. 13 entries. 1789-1906. Regional.)
See 63, 411, 2061, 2089.
- HIGHWOOD MTS.** See 1814.
- HIMALAYA MOUNTAINS.**
- 1373 DIENER, C. The Trias of the Himálayas. India Geol. Surv., Mem. 36-III, 1912: 3-13. (31 entries. 1851-1909. Footnotes.)
See also INDIA.
- HORNBLLENDE.** See 332.
- HORSE.**
- 1374 ANTONIUS, OTTO. Equus Abeli nov. spec. Ein Beitrag zur genaueren Kenntnis unserer Quartärpferde. Beitr. Paläont. Oesterr.-Ung., 26, 1913: 295-296. (50 entries. 1869-1912. General.)
- 1375 GIDLEY, J. W. Tooth characters and revision of the North American species of the genus Equus. Am. Mus. Nat. Hist., Bull. 14, art. 9, 1901: 140-142. (21 entries. 1840-1900. Select.)
- 1376 SEFRE, IVAR. Die fossilen Pferde Südamerikas. Upsala, 1912, 185 pp. Sven. Vetenskap. Handl., Arsbok 48, no. 6. (Literature, 181-183. 62 entries. 1840-1912. Regional.)
- HUNGARY.**
- 1377 BARTELS, W. Die Spateisenstein-Lagerstätten des Zipser Comitatus in Oberungarn. Berlin, 1910, 113 pp. Arch. Lagerstättenf. 5. (Literature, 3-4. 28 entries. 1798-1906. Regional.)
- 1378 GÖLL, WILHELM, LIEFFA, AUREL, and TIMKÓ, EMERICH. Über die agrogeologischen Verhältnisse des Ecsedi láp. Hungary. Geol. Anst., Mitth. 14, 1906: 331-332. (33 entries. 1796-1905. Regional.)
- 1379 HALAVÁTS, GYULA v. Die neogenen Sedimente der Umgebung von Budapest. Hungary. Geol. Anst., Mitth. 17, 1910: 384-386. (43 entries. 1822-1903. Regional.)
- 1379a HALAVÁTS, GYULA v. A magyar pontusi emelet átalános és öslény-tani irodalma. Allgemeine und paläontologische Literatur der pontischen Stufe Ungarns. Littérature générale et paléontologique sur l'étage pontique d'Hongrie. Budapest, 1904, 134 pp. Publikationen der kgl. ungarischen geologischen Anstalt. (306 entries. 1780-1903. Regional.)
- 1380 HALAVÁTS, JULIUS. Die geologischen Verhältnisse des Alföld (Tieflandes) zwischen Donau und

*Not seen.

- Theiss. Hungary. Geol. Anst., Mitth. 11, 1897: 120-121. (38 entries. 1726-1892. Regional.)
- 1381 JUNGHANN, [H]. Das Eruptivgebiet von Tiszoloz (Komitat Gömör), Ungarn. N. J. f. Min., B. B. 33, 1912: 40-42. (33 entries. 1883-1911. Regional.)
- 1381a KALECSINSKY, SANDOR. Die untersuchten Tone der Länder der ungarischen Krone. Budapest, 1906, 234 pp. Publikationen der kgl. ungarischen geologischen Anstalt. (Literatur, 10-11. 19 entries. 1885-1902. Regional.)
- 1382 LÓCZY, LUDWIG VON, and PAPP, KARL VON. Die im ungarischen Staatsgebiete vorhandenen eisenervorräte. In Iron resources of the world. 11. Int. Geol. Cong., 1, 1910: 280-282. (50 entries. 1862-1909. Regional.)
- 1383 LÖRENTHEY, EMERICH. Die Pannonische Fauna von Budapest. Palaeontographica, 48, 1902: 290-294. (93 entries. 1822-1901. Regional.)
- 1384 MOROZEWICZ, J. Ueber die Tatra-granite. (Übersicht der bisher erworbenen Untersuchungsergebnisse.) N. J. f. Min., B. B. 39, 1914: 294-295. (20 entries. 1815-1914. Regional.)
- 1385 NÓPCSA, F. BARON, jr. Zur geologie der gegend zwischen Gyulafehérvár, Déva, Ruszabánya und der rumänischen Landesgrenze. Hungary. Geol. Anst., Mitth. 14, 1905: 99-106. (194 entries. 1780-1903. Regional.)
- 1386 POSEWITZ, THEODOR. Petroleum und asphalt in Ungarn. Hungary. Geol. Anst., Mitth. 15, 1907: 239-249. (233 entries. 1791-1906. Regional.)
- 1387 PRINZ, GYULA. Die Fauna der älteren Jurabildungen im nordöstlichen Bakony. Hungary. Geol. Anst., Mitth. 15, 1904: 132-136. (116 entries. 1842-1904. General.)
- 1388 [REPERTORIUM der auf Ungarn bezüglichen geologischen Literatur]. Földt. Közl.:
 1899, v. 30, 1900: 40-43.
 1900, 31, 1901: 43-46.
 1901, 32, 1902: 57-62.
 1902, 33, 1903: 65-73.
 1903, 34, 1904: 65-73.
 1904, 35, 1905: 88-97.
 1905, 36, 1906: 195-206.
 1906, 37, 1907: 36-45.
 1907, 38, 1908: 58-66.
 1908, 39, 1909: 33-46.
 1909, 40, 1910: 39-56.
 1910, 41, 1911: 115-130.
 1911, 42, 1912: 157-176.
 1912, 43, 1913: 230-248.
 (2798 entries. 1899-1912. Regional.)
- 1389 ROZLOZSNIK, PAUL. Die montanologischen Verhältnisse von Aranyida. Hungary. Geol. Anst., Mitth. 19, 1912: 267-268. (24 entries. 1819-1906. Regional.)
- 1390 STAFF, HANS V. Beiträge zur Stratigraphie und Tektonik des Gerecse-Gebirges. Hungary. Geol. Anst., Mitth. 15, 1906: 227-233. (155 entries. 1819-1906. Regional.)
- 1391 SZÉKÁNY, BELA. Die Eiszeit in Ungarn. Zeit. f. Gletscherk. 10, 1916-17: 220-224. (101 entries. 1857-1913. Regional.)
- 1392 TAEGER, HEINRICH. Die geologischen Verhältnisse des Vértesszőlő-Gebirges. Hungary. Geol. Anst., Mitth. 17, 1908: 8-25. (270 entries. 1818-1906. Regional.)
- 1393 VINASSA DE REGNY, P. Trias-Tabulaten, Bryozoen und Hydrozoen aus dem Bakony. Res. wissen. Erf. Balatonsees, 1-1. Pal. Anh. IV. 1911: 3-4. (21 entries. 1817-1900. General.)
- 1394 WOLDRICH, JOSEPH. Geologische und Montanistische Studien in den Karpathen nördlich von Doberschau. Berlin, 1913, 108 pp. Arch. Lagerstättenf., 11. (Literature, 105-8. 71 entries. 1855-1910. Regional.)
 See 219, 410, 412, 560, 980, 1119, 1515, 1589, 1590, 1641, 1740a, 1781, 1789, 2526.
- HYDROCARBONS, NATURAL.**
- 1395 LADOO, R. B. The natural hydrocarbons: Gilsonite, Elaterite, Wurtzilite, Grahamite, Ozokerite and others. U. S. Bur. Mines, Rept. Invest., May, 1920. (19 entries. 1885-1918. General.)
- HYDROLOGY.**
- 1396 MARTEL, E. A. L'eau, étude hydrologique. Paris, 1906, [87]-200 pp. (Bibl. footnotes. 1873-1906.)
 See 96, 799, 801, 1465, 1480, 1542, 2524, 2576.
 See also UNDERGROUND WATERS.
- HYENA.** See 1618.
- ICELAND.**
- 1397 PJETURSS, H. Island. Heidelberg, 1910, 22 pp. Handb. reg. Geol.,

2. (Literature, 20-21. 36 entries. 1772-1910. Regional.)

- 1398 RECK, H. Die Geologie Islands in ihrer Bedeutung für Fragen der allgemeinen Geologie. Geol. Rundsch., 2, 1911: 302-304. (65 entries. 1905-10. Regional.)
See 907, 1240.

ICHTHYOSAURIA.

- 1399 MERRIAM, J. C. Triassic Ichthyosauria with special reference to the American forms. Berkeley, 1908, 196 pp. Cal. Univ., Mem. 1, no. 1. (Literature, 7-8. 34 entries. 1847-1905. General.)
- 1400 WIMAN, CARL. Ichthyosaurier aus der Trias Spitzbergens. Upsala, Univ., Bull. Geol. Inst. 10, 1910-11: 144. (19 entries. 1866-1910. Regional.)
- 1401 WIMAN, CARL. Über Mixosaurus Cornalianus Bass. sp. Upsala, Univ., Bull. Geol. Inst. 11, 1912: 240. (18 entries. 1891-1901. General.)

IDAHO.

- 1401a LINDGREN, WALDEMAR. The mining districts of the Idaho basin and the Boise Ridge, Idaho. . . . U. S. Geol. Surv., Ann. Rept. 18-III, 1898: 626-628. (11 entries. 1870-1906. Regional. (Footnote references.)
- 1402 RICHARDS, R. W., and MANSFIELD, G. R. The Bannock overthrust a major fault in southeastern Idaho and northeastern Utah. Journ. Geol., 20, 1912: 707-9. (29 entries. 1887-1911. Regional.)
- 1403 UMPLEBY, J. B. Geology and ore deposits of Lemhi county, Idaho. Washington, 1913, 182 pp. U. S. Geol. Surv., Bull. 528. (Bibl., 16-17. 9 entries. 1893-1909. Regional.)
- 1404 UMPLEBY, J. B. Geology and ore deposits of the Mackay region, Idaho. Washington, 1917, 129 pp. U. S. Geol. Surv., Prof. Paper 97. (Literature, 13, 77. 21 entries. 1893-1913. Regional.)
- 1405 UMPLEBY, J. B. Some ore deposits in northwestern Custer County, Idaho. Washington, 1913, 104 pp. U. S. Geol. Surv., Bull. 539. (Literature, 11-12. 12 entries. 1893-1913. Regional.)
- 1406 U. S. GEOLOGICAL SURVEY. Publications of the . . . on metalliferous resources in Idaho. Its

Min. Res. 1914-I, 1916: 639. (32 entries. 1895-1914. Regional.)

- 1407 VARLEY, THOMAS, and others. A preliminary report on the mining districts of Idaho. Washington, 1919, 113 pp. U. S. Bur. Mines, Bull. 166. (214 entries. 1871-1917. Regional. Bibliographies through text for the various counties. Bibliography was compiled by the late Dr. A. C. Stewart and has been completed and brought up to date by Mr. D. C. Livingston.)
See 309, 2379, 2727, 2770, 2920.

ILLINOIS.

- 1408 ALDEN, W. C. Chicago folio, Illinois-Indiana. Washington, 1902, 14 pp. U. S. Geol. Surv., Geol. Atlas 81. (Bibl., 13-14. 36 entries. 1868-1900. Regional.)
- 1409 ATWOOD, W. W., and GOLDTHWAIT, J. W. Physical geography of the Evanston-Waukegan region. Urbana, 1908, 102 pp. Ill. Geol. Surv., Bull. 7. (Bibl., 94. 23 entries. 1868-1907. Regional.)
- 1410 BARRETT, N. O. Mineral resources in Illinois in 1916. Ill. Geol. Surv., Bull. 36, 1920: 65-70. (110 entries. 1903-16. Regional.)
- 1410a CADY, G. H. The structure of the La Salle anticline. Ill. Geol. Surv., Bull. 36, 1920: 94-96. (44 entries. 1838-1916. Regional.)
- 1411 COX, G. H. Lead and zinc deposits of northwestern Illinois. Urbana, 1914, 120 pp. Ill. Geol. Surv., Bull. 21. (Bibl., 112-114. 51 entries. 1842-1910. Regional.)
See 416, 655, 859, 864, 1577, 2657, 2721, 2890, 2920.

INDIA.

- 1412 DIENER, C. Anthracolithic fossils of Kashmir and Spiti. India Geol. Surv., Pal. Ind. XV. Himalayan fossils. 1-II, 1915: 10-13. (112 entries. 1809-96. Regional.)
- 1413 FERMOR, L. L. The mineral resources of the Central Provinces. India Geol. Surv., Rec. 50, 1919: 297-302. (46 entries. 1843-1918. Regional.)
- 1413a *GRUNDY, JAMES. Report on the inspection of the Mayo salt mine, Salt Range, Khewra, Jhelum district, Punjab, and of the other salt mines in the Salt Range. Calcutta, 1898, 97 pp. (Literature on the Salt Range: 72-73.)

*Not seen.

- 1414 HAYDEN, H. H. The geology of Spiti, with parts of Bashahr and Rupshu. India Geol. Surv., Mem. 36-I, 1912: App. i-xv. (109 entries. 1821-1903. Regional.)
- 1415 HAYDEN, H. H., and HATCH, F. H. The gold-fields of Wainád. India Geol. Surv., Mem. 33-II, 1902; 3-5. (29 entries. 1813-1900. Regional.)
- 1416 HOLLAND, T. H. Sketch of the mineral resources of India. Calcutta, 1908, 86+xi pp. (Literature, 77-86. 151 entries. 1856-1907. Regional.)
- 1417 LA TOUCHE, T. H. D., *comp.* A bibliography of Indian geology and physical geography with an annotated index of minerals of economic value. Part I. Calcutta, 1917, 571 pp. (Regional.)
- 1418 NOETLING, FRITZ. Beiträge zur Geologie der Salt Range, insbesondere der permischen und triassischen Ablagerungen. N. J. f. Min., B. B. 14, 1901: 468-471. (53 entries. 1872-1900. Regional.)
- 1419 PASCOE, E. H. Petroleum in the Punjab and North-West Frontier province. Calcutta, 1920 pp. 331-493. India Geol. Surv., Mem. 40, pt. 3. (Bibl., 490-493. 68 entries. 1847-1919. Regional.)
- 1420 PASCOE, E. H. The petroleum occurrences of Assam and Bengal. Calcutta, 1914, pp. 270-329. India Geol. Surv., Mem. 40, pt. 2. (Bibl., 325-329. 69 entries. 1832-1913. Regional.)
- 1421 REDLICH, K. A. The Cambrian fauna of the eastern Salt-Range. Calcutta, 1901, 13 pp. India Geol. Surv., Pal. Ind. n. s. 1, no. 1. (Literature, [1]. 9 entries. 1881-96. Regional.)
- 1422 ROCCATI, ALESSANDRO. Studio litologico e mineralogico del materiale raccolto dal Conte Dott. Cesare Calciati nella spedizione al Karakoram sud-orientale durante l'estate del 1911. Soc. geol. ital., Boll. 34, 1915: 75-77. (33 entries. 1842-1912. Regional.)
- 1423 SEWARD, A. C. Lower Gondwana plants from the Golabgarh Pass, Kashmir. Calcutta, 1912, 10 pp. (Bibl., 10. 23 entries. 1864-1910. General.)
- 1424 SEWARD, A. C., and SAHNI, B. Indian Gondwana plants: a revision. Calcutta, 1920, 41 pp. India Geol. Surv., Pal. Ind. n. s. 7, Mem. 1. (Bibl., 39-41. 70 entries. 1862-1919. General.)
- 1425 SEWARD, A. C., and WOODWARD, A. S. . . Permo-Carboniferous plants and vertebrates from Kashmir. Calcutta, 1905, 13 pp. (Bibl. fossil plants, 8-9. 26 entries. 1847-1903. General.)
- 1426 ZUBER, RUDOLF. Beiträge zur Geologie des Punjab (Ostindien). Austria. Geol. Reichsanst., Jahrb. 64, 1914: 329-330. (11 entries. 1874-1908. Regional.) See 49, 50, 713, 747, 842, 972, 1590, 1641, 1723. See also BURMA, HIMALAYAS.
- INDIANA.**
- 1427 HOPKINS, T. C. General index to all the publications of the Indiana Geological Survey, the Department of Geology and Natural History, and the Department of Geology and Natural Resources. Indiana. Dept. geol., Ann. Rept. 28, 1903: 497-553. (Regional.)
- 1427a KINDLE, E. M. A catalogue of the fossils of Indiana, accompanied by a bibliography of the literature relating to them. Indiana Dept. Geol., Ann. Rept. 22, 1897: 489-514. (237 entries. 1842-96. Regional.)
- 1427b LOGAN, W. N. Kaolin of Indiana. Indianapolis, 1919, 131 pp. Indiana, Dept. Conserv., Publ. 6. (Bibl., 13-14. 23 entries. 1862-1918. Regional.)
- 1427c WOOD, H. W. History of Indiana during the glacial period. Indiana Dept. Geol., Ann. Rept. 40, 1915: 42-43. (14 entries. 1893-1908. Regional.) See 643, 655, 1408, 1577, 2180.
- INDIAN OCEAN.** See 817, 1584.
- INDO-CHINA.**
- 1428 COLANI, M. Étude sur les Flores tertiaires de quelques gisements de lignite de l'Indochine et du Yunnan. Indo-China. Serv. géol., Bull. 8, fasc. 1, 1920: 517-521. (49 entries. 1790-1919. General.)
- 1428a JACOB, CHARLES, and BOURRET, RENÉ. Itinéraire géologique dans le nord du Tonkin. Hanoi-Haiphong, 1920, 49 pp. Indo-China. Serv. géol., Bull. 9, fasc. 1. (Bibl., [9]. 7 entries. 1915-19. Regional.) See 635, 1142.
- INFRAFORMATIONAL DEFORMATION.** See 1892.
- INFUSORIAL EARTH.** See 2725.

INSECTS.

- 1429 ENDERLEIN, GÜNTHER. Die fossilen Copeognathen und ihre Phylogenie. *Palaeontographica*, 58, 1911: 358. (17 entries. 1854-1910. General.)
- 1430 MEUNIER, FERNAND. Monographie des *Empidae* de l'ambre de la Baltique et catalogue bibliographique complet sur les Diptères de cette résine. *Ann. sci. nat. I. (sér. 9)* 7, 1908: 128-129. (41 entries. 1892-1908. General.)
- 1431 TILLYARD, R. J. Mesozoic insects of Queensland. *Linnean Soc. N. S. W., Proc.* 42, 1917: 691; 43, 1918: 435, 592; 44, 1919: 382, 895. (26 entries. 1856-1919. General.)

See 771, 1201b, 1627.

INVERTEBRATES.

- 1432 GRABAU, A. W., and SHIMER, H. W. North American index fossils, invertebrates. Vol. 2. N. Y., 1910, 909 pp. (Bibl., 714-802. 1832-1909. General.)
- 1433 KITCHIN, F. L. The invertebrate fauna and palaeontological relations of the Uitenhage series. *S. Afr. Mus., Ann.* 7, 1908: 233-250. (270 entries. 1824-1908. General.)
- 1434 ORTMANN, A. E. Tertiary invertebrates. *Princeton Univ. Exp. Patagonia, Rept.* 4, 1901: 325-332. (166 entries. 1785-1900. General.)
- 1435 SMITH, J. P. The Middle Triassic marine invertebrate faunas of North America. Washington, 1914, 254 pp. *U. S. Geol. Surv., Prof. Paper* 83. (Bibl., 20-23. 132 entries. 1841-1912. General.)
- 1436 WELLER, STUART. A bibliographic index of North American Carboniferous invertebrates. Washington, 1898, 653 pp. *U. S. Geol. Surv., Bull.* 153. (Chronol. catalogue, 9-39. 437 entries. 1823-97).

See 1497a, 2094, 2867a.

IONIAN ISLANDS. See 130.

IOWA.

- 1437 HOWELL, J. V. The iron ore deposits near Waukon, Iowa. *Iowa Geol. Surv., Ann. Rept.* 25, 1914: 92. (14 entries. 1870-1915. Regional.)
- 1437a KEYES, CHARLES. Annotated bibliography of Iowa geology and mining. Des Moines, 1913, 908

pp. *Iowa Geol. Surv., Vol.* 22. (ca 10,000 entries. 1843-1913. Regional.)

- 1438 *LEVERETT, FRANK. Old channels of the Mississippi in southeastern Iowa. *Annals of Iowa*, 3d ser. 5, 1901: 38-51.

See 308, 732, 1604, 2115, 2890, 2920.

IRELAND.

- 1439 COLE, G. A. J. Recent papers relating to Irish geology. *Irish Nat.* 12, 1903: 1-12. (17 entries. 1900-02. Regional.)
- 1440 LAMPLUGH, G. W., and others. The geology of the country around Dublin. . . . Dublin, 1903, 160 pp. *Ireland Geol. Surv., Mem.* (Bibl. app., 148-155. 145 entries. 1794-1902. Regional.)
- 1441 REED, F. R. C. Notes on the geology of County Waterford. I. The fauna of the Ordovician beds near Tramore. *Geol. Mag., n. s.* (iv) 8, 1901: 503-504. (30 entries. 1821-97. Regional.)
- 1442 SEYMOUR, H. J. Papers relating to Irish geology, published during the years 1903, 1904, and 1905. *Irish Nat.* 15, 1906: 6-11. (20 entries. 1903-05. Regional.)
- See 917, 1078, 1334.
- 1442a *WILKINSON, S. B., and others. The geology of the country around Londonderry. London, 1908, 106 pp. *Ireland Geol. Surv., Mem.* (Bibl., 101-102.)

See 917, 1078, 1334.

IRON ORES.

- 1443 BERGEAT, ALFRED. Die genetische Deutung der nord- und mittelschwedischen Eisenerzlagerstätten in der Literatur der letzten Jahre. *Fortschr. Min. Krist. Petrogr.*, 1, 1911: 141-142. (16 entries. 1903-10. General.)
- 1444 BROOKS, A. H., and LA CROIX, M. F. The iron and associated industries of Lorraine, the Sarre district, Luxemburg, and Belgium. Washington, 1920, 131 pp. *U. S. Geol. Surv., Bull.* 703. (Principal works, 125-127. 73 entries. 1904-19. Regional. Principal works consulted compiled by Harold F. Crooks.)
- 1445 BURCHARD, E. F. Iron ore, pig iron, and steel. *U. S. Geol. Surv., Min. Res.* 1911-I, 1912: 168-174. (219 entries. 1880-1911. General.)
- 1446 BURCHARD, E. F. Iron ore, pig iron, and steel. *U. S. Geol. Surv., Min. Res.* 1916-I, 1919:

*Not seen.

- 559-564. (133 entries. 1873-1917. General.)
- 1447 EARLE, R. B. The genesis of certain Paleozoic interbedded iron ore deposits. N. Y. Acad. Sci., Ann. 24, 1914: 156-176. (359 entries. 1842-1913. General. Bibliography chiefly on the Clinton iron ore.)
- 1448 ECKEL, E. C. Iron ores; their occurrence, valuation and control. N. Y., 1914, 430 pp. (Bibl. through text. General.)
- 1449 GEIJER, PER. Some problems in iron ore geology in Sweden and in America. Econ. Geol., 10, 1915: 328-329. (9 entries. 1910-13. Regional.)
- 1450 JOSEPH, P. E. Iron. Tucson, Arizona, 1916-17, 13 pp. Ariz. Univ. Bull. 43, Min. tech. ser. 15. (5 entries. 1914. General.)
- 1450a NAUMANN, EINAR. Om järnets förekomst i limniska avlagringar, med särskild hänsyn till pyritens bildningsförutsättningar och uppträdande däri. Stockholm, 1919, 47 pp. Sweden. Sver. geol. Undersök., C. 289. Årsbok 12 (1918) no. 6. (Literatur, 43-45. 35 entries. 1873-1918. Regional.)
- 1451 NICOLAU, TH. Untersuchungen an den eisenführenden gesteinen der insel Disko. Med. Grønland, 24, 1901: 217-218. (18 entries. 1872-97. Regional.)
- 1452 TEGENGREN, F. R. Järnmalmsförekomsterna vid Ruoutevare och Vallatj. Sweden. Sver. geol. undersök. C, No. 230. Årsbok 4 (1910). no. 2: 44, 62. (29 entries. 1804-1910. Regional.)
- See 260, 389, 587, 620, 624, 1104a, 1199, 1274, 1370, 1371, 1377, 1382, 1437, 1481, 1511a, 1560, 1590, 1726, 1726a, 1740a, 1763, 1764, 1768, 1769, 1769a, 1847, 1895, 1902, 1903, 1904, 1955, 1974, 1979, 1979a, 2019, 2031, 2130, 2196, 2197, 2351, 2361, 2395, 2447, 2461, 2510, 2542, 2569, 2572, 2629, 2657a, 2774, 2787, 2833, 2896, 2904, 2905.

IRONSTONES.

- 1453 CADMAN, JOHN. The occurrence, mode of working, and treatment of the ironstones found in the North Staffordshire coalfield. Inst. M. E., Trans. 22, 1901-02: 89. (5 entries. 1686-1886. Regional.)

*Not seen.

IRRIGATION.

- 1454 NEWELL, F. H., comp. Proceedings of second conference of engineers of the Reclamation Service with accompanying papers. Washington, 1905, 267 pp. U. S. Geol. Surv., Water-supply Paper 146. (List of papers, 256-261. 154 entries. 1892-1905. General. A list of technical papers by members of the Reclamation Service.)

See also WATER SUPPLY.

ISOMORPHISM.

- 1455 HLAWATSCH, C. Bemerkungen zur Definition des Isomorphismus. Zeit. f. Kryst., 51, 1913: 417-420. (119 entries. 1818-1910. General.)

ITALY.

- 1456 *ANGELIS D'OSSAT, G. DE. Studio bibliografica sull'origine dell'Acqua Vergine (Roma). Bol. nat. Siena. 27, 1907: 25-27, 33-36, 57-61, 65-69, 73-76. Estr. 1-18.
- 1457 BALTZER, A. Geologie der Umgebung des Iseosees. Geol. u. palaeont. Abh., 9 (n.f. 5) 1901-07: 111-112. (50 entries. 1858-1901. Regional.)
- 1458 BENTIVOGLIO, T. Bibliografia geomineralogica e paleontologica delle provincie di Modena e Reggio-Emilia. Soc. nat. mat. Modena, Atti: *1469-1900, v. 33, 1901: 1-179. 1901-05, v. 11, 1909: 1-28. (98 entries. (1469-1905. Regional.)
- 1459 BÜLOW, E. v. Die Val-Trompia Linie von Collio bis zum Mte. Guglielmo. Deutsch. geol. Gesell., Zeit. 69, 1917: 287-289. (41 entries. 1855-1914. Regional.)
- 1460 CACCIAMALI, G. B. Bradisismi e terremoti della regione Benacense. Soc. geol. ital., Bol. 21, 1902: 181-182. (12 entries. 1891-1901. Regional.)
- 1461 CAMERANA, E., and GALDI, B. I giacimenti petroliferi dell'Emilia. Bologna, 1911, 334 pp. Italy. Com. geol., Mem. carta geol. 14. (Bibl., 311-321. 223 entries. 1840-1910. Regional.)
- 1462 CRAVERI, MICHELE. Avanzi fossili animale e vegetali di Civezzano alle Fornaci nel Trentino. Soc. geol. ital., Boll. 30, 1911: 887-894. (89 entries. 1779-1902. Regional.)
- 1463 CRAVERI, M. Bibliografia scientifica della Val Vigizzo. Giorn.

- geol. prak., 10, 1912: 11-13. (29 entries. 1829-1912. Regional.)
- 1464 CRAVERI, M. Bibliografia scientifica Ossolana concernente la Geologia pura ed applicata, la Petrografia, la Paleontologia. Soc. geol. ital., Boll. 30, 1911: 231-244. (178 entries. 1812-1911. Regional.)
- 1465 CRAVERI, M. Saggio di geo-idrografia sotterranea dell'Ossola. Soc. geol. ital., Boll. 33, 1914: 392-394. (35 entries. 1880-1914. Regional.)
- 1466 CRINÓ, SEBASTIANO. Bibliografia storico-scientifica dell'Etna. Accad. sci. nat. Catania, Atti. ser. 4, 20. Mem. 6, 1908: 1-69. (ca 1,200 entries. 1541-1907. Regional.)
- 1467 DAINELLI, GIOTTO. L'Eocene friulano. Firenze, 1915, 721 pp. (Bibl., 5-13. 69 entries. 1748-1913. Regional.)
- 1468 FABIANI, R., and STEFANINI, G. Monografia sui terreni terziari del Veneto. Padua Univ. Mem. inst. geol., 3, 1915: 317-332, 614-621. (1,086 entries. 1721-1915. Regional.)
- 1469 FRANCHI, S. Bibliografia ragionata dei principali lavori concernenti la cronologia dei terreni a "facies piemontese" (zona delle pietre verdi, schistes lustrés, Bündnerschiefer, Schieferhülle). Italy. R. Com. geol., Boll. 40, 1909: 552-591. (128 entries. 1861-1908. Regional.)
- 1470 *FRISONI, ANTONIO. Saggio di una bibliografia scientifica della Liguria. Geografia e storia naturale. Soc. lig. sci. nat. Genova, Boll. 18, 1907: 139-150; 19, 1908: 80-96, 153-171; 20, 1909: 194-209; 21, 1910: 144-160; 22, 1911: 55-68.
- 1471 GIGNOUX, MAURICE. Les formations marines pliocènes et quaternaires de l'Italie du sud et de la Sicile. Lyon. Univ., Ann. 1. 36, 1913: 667-686. (246 entries. 1870-1912. Regional.)
- 1472 GORTANI, MICHELE. Bibliografia geologica ragionata del Friuli (1737-1905). Soc. geol. ital., Bol. 25, 1906: 384-410. (383 entries. 1737-1905. Regional.)
- 1473 GÜNTHER, R. T. A bibliography of topographical and geological works on the Phlegraean fields. London, 1908, 100 pp. (ca 2,200 entries. B. C. 167-1907. Regional.)
- 1474 GUIDE ALLE ESCURSIONI del XXX Congresso della Società geologica Italiana. Soc. geol. ital., Boll. 30, 1911: lxxvii-lxxxii, xcvi-cii, cxix-cxx. (185 entries. 1725-1911. Regional. Report contains three bibliographies of the following regions: Valsassina, Gruppo delle Grigno, Monte Barro.)
- 1475 *ITALY. MINISTERO DEGLI AFFARI ESTERI. Direzione degli affari coloniali. Raccolta di pubblicazioni coloniali italiane. Primo indice bibliografico. Roma, 1911.
- 1476 ITALY. R. COMITATO GEOLOGICO. Bibliografia geologica italiana. Its Boll.:
1894, v. 26: 144, 222-249, 346-382, 477-509.
1895, v. 27: 113-126, 204-228, 333-364, 422-475.
1896, v. 28: 71-118, 184-206, 284-302, 372-412.
1897, v. 29: 139-169, 285-321.
1898, v. 30: 61-125, 169-203, 269-299, 353-389.
1899, v. 31: 88-114, 189-226, 278-323, 385-428.
1900, v. 32: 94-124, 179-189, 227-285, 324-402.
1901, v. 33: 46-84, 125-144, 202-241, 339-368.
1902, v. 34: 55-109, 151-173, 277-293, 379-403.
1903, v. 35: 76-118, 268-325, 380-436.
1904, v. 36: 66-84, 121-171, 216-251, 316-348.
1905, v. 37: 61-84, 238-259, 320-350.
1906, v. 38: 57-88, 109-136, 230-272, 344-421.
1907, v. 39: 45-79, 129-160, 223-258, 301-327.
1908, v. 40: 73-106, 191-230, 355-390, 593-630.
1909, v. 41: 93-119, 201-223, 341-372, 459-500.
1910, v. 42: 1-141.
1911, v. 43: 1-156.
1912, v. 44: 69-154.
1913, v. 45: 1-106.
1914, v. 46: 1-112.
(5,079 entries. 1894-1914. Regional.)
- 1477 *JAJA, GOFFREDO. Bibliografia scientifica per uno studio fisiografico della regione della Nera (Italia centrale). Roma, 1904.

*Not seen.

- 1478 MELI, ROMOLO. Apunti geologici presi in una gita da Stilo a Serra S. Bruno (Calabria). Pont. Accad. rom. Lincei, Atti. 71, 1918: 76-94. (72 entries. 1763-1917. Footnotes.)
- 1479 MELI, R. Materiale per una bibliografia scientifica del littorale Romano . . . Soc. geol. ital., Boll. 23, 1904: xliii-cxxvi. (251 entries. 1622-1903. Regional.)
- 1480 MODERNI, P. Contribuzione allo studio geologico dei Vulcani Vulsini. Bibliografia geologica ed idrologica . . . (sino al 1898), Italy. Com. geol., Boll. 35, 1904: 253-262. (150 entries. 1678-1898. Regional.)
- 1481 MÜLLER, F. P. Die Magneteisenerzlagerstätten von Cogne (Piemont). Zeit. f. prak. Geol., 23, 1915: 180. (14 entries. 1784-1914. Regional.)
- 1482 NOVARESE, VITTORIO. I terreni miocenici di Val di Bruna (Maremma Toscana) ed i loro giacimenti di lignite. Italy. Com. geol., Boll. 39, 1908: 4-6. (26 entries. 1843-1907. Regional.)
- 1483 ORZI, D. I terreni agrari del territorio di Grotte di Castro. Georn. geol. prak., 5, 1907: 95-98. (63 entries. 1886-1905. Regional.)
- 1484 PARONA, C. F. La fauna coralligena del cretaceo dei Monti d'Ocre nell'abruzzo Aquilano. Roma, 1909, 242 pp. Italy. Com. geol., Mem. carta geol. 5, pt. 1. (Bibl., 5. 19 entries. 1877-1908. Regional.)
- 1485 PARONA, C. F., and BONARELLI, G. Fossili albiani d'Escragnolles, del Nizzardo e della Liguria occidentale. Palaeont. ital., 2, 1896: 63-64. (49 entries. 1678-1895. General.)
- 1486 PIAZ, G. DAL. Studi geologici-petrografici intorno ai colli Euganei. Riv. min. e crist., 16, 1896: 51-61. (144 entries. 1606-1893. Regional.)
- 1487 PREVER, P. L. Aperçu géologique sur la Colline de Turin. Soc. géol. France, Mém. 5th ser. 1, no. 2, 1907: 52-48. (269 entries. 1757-1906. Regional.)
- 1487a RASSMUSS, HANS. Beiträge zur stratigraphie und tektonik der südöstlichen Alta Brianza. Jena, 1912, 128 pp. Geol. u. paläont. Abh., n. f. 10, hft. 5. (Literatur, 4-9. 222 entries. 1912-10. Regional.)
- 1488 REINHOLD, TH. Die Goldpyritgänge von Brusson in Piemont. Naturf. Gesell. Basel, Verh. 27, 1916: 84-85. (36 entries. 1786-1913. Regional.)
- 1489 *RUMOR, SEBASTIANO, and LIOX, PAOLO. Bibliografia geologica della provincia di Vicenza. Club alpino italiano, Sezione di Vicenza. Carta e bibliografia geologica della provincia di Vicenza. Vicenza, 1901, pp. 1-10.
- 1490 SABATINI, V. I vulcani dell'Italia centrale e i loro prodotti. I-II. Roma, 1900-1912. 392+636 pp. Italy, Com. geol., Mem. carta geol. 10, 15. (670 entries. 1553-1912. Regional.)
- 1491 SACCO, FEDERICO. L'Appennino meridionale. Soc. geol. ital., Boll. 29, 1910: 287-296. (230 entries. 1776-1910. Regional.)
- 1492 SACCO, F. Gli Abruzzi. Soc. geol. ital., Boll. 26, 1907: 447-460. (258 entries. 1689-1907. Regional.)
- 1493 SACCO, FEDERICO. Il Finalese. Accad. sci. Torino, Atti, 55, 1919-20: 531-535. (86 entries. 1781-1909. Regional.)
- 1494 SACCO, FEDERICO. Il Molise. Soc. geol. ital., Boll. 27, 1908: 534-538. (79 entries. 1641-1908. Regional.)
- 1494a SACCO, FEDERICO. La Puglia, schema geologico. Soc. geol. ital., Boll. 30, 1911: 609-637. (350 entries. 1703-1910. Regional.)
- 1495 SACCO, FEDERICO. La questione eo-miocenica dell'Appennino. Soc. geol. ital., Boll. 25, 1906: 117-127. (154 entries. 1842-1905. Regional.)
- 1496 SILVESTRI, A. Nuove notizie sui fossili cretacei della contrada Calcasacco presso Termini-Imerese (Palmero). Palaeont. ital., 18, 1912: 51-52. (26 entries. 1905-10. Regional.)
- 1497 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire . . . en Italie, a Turin et a Gènes . . . Bibliographie. Its Bull. 4th ser. 5, 1905: 812-815. (65 entries. 1814-1905. Regional.)
- 1497a STEFANINI, G. Fossili del Neogene Veneto. Pt. 2. Brachiopoda-Echinodermata. Paläont. ital., 25, 1919: 166-171. (197 entries. 1782-1914. Regional.)

*Not seen.

- 1498 STELLA, A. Descrizione geognostico-agraria del colle Montello (Provincia di Treviso). Roma, 1902, 82 pp. Italy. Com. geol., Mem. carta geol. 11. (Bibl., [xi]. 8 entries. 1874-1900. Regional.)
- 1499 STELLA, A. I giacimenti metalliferi dell'Ossola. Italy. Com. Geol., Boll. 37, 1906: 267-271. (19 entries. 1786-1906. Regional.)
- 1500 STELLA, A. Studii sulla idrologia sotterranea della pianura del Po. Roma, 1915, 151 pp. Italy. Com. geol., Mem. carta geol. 17. (Bibl., ix-xi. 48 entries. 1874-1914. Regional.)
- 1501 TOLDO, GIOV. Note preliminari sulle condizioni geologiche dei contrafforti appenninici compresi fra il Sillaro e il Lamone. Soc. geol. ital., Boll. 24, 1905: 343-346. (51 entries. 1846-1904. Regional.)
- 1502 TOMMASI, A. I fossili della lumachella triasica di Ghegna in Valsecca presso Roncobello. Part II. Palaeont. ital., 19, 1913: 100-101. (52 entries. 1841-1912. Regional.)
- 1503 VERRI, A., and LANZI, L. L'Uomo preistorico nella Conca di Terni. Soc. geol. ital., Boll. 29, 1910: 154-155. (16 entries. 1470-1909. Regional.)
- 1504 VIOLA, C. Il Monte Circeo in provincia di Roma. Italy. Com. geol., Boll. 27, 1896: 161-171. (59 entries. 1784-1894. Footnotes.)
- 1505 WASHINGTON, H. S. The Roman Comagmatic region. Washington, D. C., 1906, 199 pp. Carnegie Inst. Wash., Publ. 57. (Bibl., 192-194. 66 entries. 1841-1905. Regional.)
See 78, 79, 146, 179, 180, 181, 182, 347, 372, 380, 388, 489, 648, 723, 809, 836, 867, 951, 951a, 952, 953, 959, 966, 1070, 1120, 1149, 1150, 1151, 1326, 1573, 1590, 1600, 1632, 1641, 1686, 1784, 2062, 2187, 2291, 2384, 2386, 2399, 2662, 2811a, 2845.
- JADE.
- 1506 [BISHOP, H. R.]. The Bishop collection; investigations and studies in jade. 2 vols. New York, 1906. (Bibl. vol. 1: 257-60. 42 entries. 1827-1898. General.)
- 1506a BLEECK, A. W. G. Die Jadeit-lagerstätten in upper Burma. Zeit. f. prak. Geol., 1907: 341 (16 entries. 1837-1906. Regional.)
- JAPAN. See 491, 671, 837, 1641, 2254.
- JAVA.
- 1507 MARTIN, K. Einige allgemeinere Betrachtungen über das Tertiär von Java. Geol. Rundsch., 4, 1913: 172-173. (39 entries. 1853-1912. Regional.)
- 1508 MARTIN, K. Vorläufiger Bericht über geologische Forschungen auf Java. Zweiter Teil. Leiden. Geol. R. Mus., Samml. I. 9, 1911-1914: 111-112. (16 entries. 1864-1912. Regional.)
- 1509 WICHMANN, ARTHUR. Der Ausbruch des Genung Ringgit auf Java im Jahre 1593. Deutsch. geol. Gesell., Zeit. 52, 1900: 658-660. (34 entries. 1597-1896. Regional.)
See 822, 2758, 2759.
- JOINTS.
- 1510 WOODWORTH, J. B. On the fracture system of joints, with remarks on certain great fractures. Boston Soc. Nat. Hist., Proc. 27, 1897: 183. (16 entries. 1847-95. General.)
- JUGO-SLAVIA.
- 1511 *POSCH, A. Literatur über Raibl. In Gögl, W. Geologisch-bergmännische Karten mit profilen von Raibl nebst Bildern von den Blei- und Zinklagerstätten in Raibl. Wien, 1903: 33-38.
- 1511a WENDEBORN, B. A. Die Kupfererz- und Limonit-Lagerstätten von Majdan-Pek in Serbien. Zeit. f. prak. Geol., 20, 1912: 266. (38 entries. 1830-1910. Regional.)
See 129, 130, 131, 369, 386, 397, 484, 1511, 1590, 1781.
- JURA MOUNTAINS.
- See 831, 848, 849, 1215, 2520, 2612a, 2886.
- 1511b AMSLER, ALFRED. Tektonik des Staffelegg-Gebietes und Betrachtungen über Bau und Entstehung des Jura Ostendes. Eclogae geol. Helv., 13, 1915: 378-80. (28 entries. 1813-1912. Regional.)
- 1511c MÜHLBERG, MAX. Vorläufige Mitteilungen über die Stratigraphie des Braunen Jura in nordschweizerischen Jura-gebirge. Eclogae Geol. Helv., 6, 1900: 330-31. (26 entries. 1838-98. Regional.)
- 1511d *ROLLIERE, LOUIS. Les facies du Dogger dans le Jura et les régions voisines. Genève, 1911.

*Not seen.

- 1511e SCHMIDT, C. Ueber tertiäre Sus-swasserkalke im Westlichen Jura. Cent. f. Min., 1904: 609-11. (35 entries. 1838-1903. Regional.)

JURASSIC.

- 1512 ANTEVS, ERNST. Die liassische Flora des Hirsansteins. Stockholm, 1919, 69 pp. Sven-Vetenskap. Handl., 59, no. 8. (Literature, 62-65. 163 entries. 1820-1918. General.)
- 1513 BOGOSLOWSKY, N. Der Rjasan-Horizont, seine Fauna, seine stratigraphischen Beziehungen und sein wahrscheinliches Alter. In Russia. Matér. géol. Russ. 18, 1897: 5-8. (50 entries. 1840-92. Regional.)
- 1514 DACQUÉ, E. Die Stratigraphie des marinen Jura an den Rändern des Pazifischen Ozeans. Geol. Rundsch., 2, 1911: 464-466. (53 entries. 1881-1911. General.)
- 1514a ERNI, ARTHUR. Das Rhät im Schweizerischen Jura. Eclogae geol. Helv., 11, 1910: 53-4. (42 entries. 1838-1908. Regional.)
- 1515 KRASSER, CARL. Männliche Williamsonien aus dem sandsteinschiefer des unteren Lias von Steierdorf im Banat. Akad. Wissensch. Wien, Denk. 93, 1917: 14. (15 entries. 1857-1913. General.)
- 1516 MOOK, C. C. A study of the Morrison formation. N. Y. Acad. Sci., Ann. 27, 1916: 172-191. (245 entries. 1821-1915. Regional.)
- 1517 OPPENHEIMER, JOSEF. Der Malm der Schwedenschanze bei Brünn. Beitr. Paläont. Oesterr.-Ung., 20, 1907: 222-223, 228-230. (105 entries. 1813-1907. General.)
- 1518 SALFELD, HANS. Fossile Land-Pflanzen der Rät- und Juraformation Südwestdeutschlands. Palaeontographica, 54, 1907: 201-203. (73 entries. 1828-1905. General.)
- 1519 SALFELD, HANS. Die Gliederung des oberen Jura in Nordwesteuropa von den Schichten mit *Perispinctes Martelli* Oppel an aufwärts auf Grund von Ammoniten . . . N. J. f. Min., B. B. 37, 1914: 241-246. (70 entries. 1836-1913. Regional.)
- 1520 SCHLUNCK, JOHANNES. Die Jurabildungen der Weserkette bei Lübbecke und Preussisch-Oldendorf. Prussia. Geol. Landesanst., Jahrb. 25, 1907: 93-94. (21 entries. 1824-1902. Regional.)
- 1521 SCHMIDT, MARTIN. Über oberen Jura in Pommern. Beiträge zur Stratigraphie und Paläontologie. Berlin, 1905, 222 pp. Prussia. Geol. Landesanst., Abh. n. f. 41. (Literature, 212-222. 158 entries. 1812-1904. Regional.)
- 1522 SCHMIERER, THEODOR. Das Altersverhältnis der Stufen ϵ und γ des weissen Jura. Deutsch. geol. Gesell., Zeit. 54, 1902: 603-607. (104 entries. 1809-1901. Regional.)
- 1523 SEWARD, A. C. The Jurassic flora of Sutherland. Roy. Soc. Edinb., Trans. 47, pt. 4, 1911: 704-706. (113 entries. 1851-1910. General.)
- 1524 SEWARD, A. C. Jurassic plants from Amurland. St. Petersburg, 1912, 34 pp. Russia. Com. géol., Mém. n. s. 81. (Bibl., 33-34. (25 entries. 1877-1911. Regional.)
- 1525 SEWARD, A. C. Jurassic plants from Caucasasia and Turkestan. St. Petersburg, 1907, 48 pp. Russia. Com. géol., Mém. n. s. 38. (Bibl., 45-48. 92 entries. 1825-1907. General.)
- 1526 SEWARD, A. C. Jurassic plants from Chinese Dzungaria, collected by Professor Obretschew. St. Petersburg, 1911, 61 pp. Russia. Com. géol., Mém. n. s. 75. (Bibl., 59-61. 55 entries. 1828-1911. Regional.)
- 1527 SEWARD, A. C. Notes on some Jurassic plants in the Manchester Museum. Manchester Phil. Soc., Mem. and Proc. 44, 1900: 25-27. (40 entries. 1836-96. General.)
- 1528 SEWARD, A. C. On a collection of Jurassic plants from Victoria. Vict. Geol. Surv., Rec. 1, pt. 3, 1904: 185-187. (64 entries. 1828-1902. General.)
- 1529 SEWARD, A. C., and BANCROFT, N. Jurassic plants from Cromarty and Sutherland, Scotland. Roy. Soc. Edinb., Trans. 48, pt. 4, 1913: 887-888. (35 entries. 1856-1912. Regional.)
- 1530 SEWARD, A. C., and THOMAS, H. H. Jurassic plants from the Balagansk district, government of Irkutsk. St. Petersburg, 1911, [23] pp. Russia. Com. géol.,

- Mém. n. s. 73. (Bibl., [23]. 12 entries. 1876-1911. Regional.)
- 1531 THOMAS, H. H. The Jurassic flora of Kamenka in the district of Isium. St. Petersburg, 1911, 95 pp. Russia. Com. géol., Mém. n. s. 71. (Bibl., 93-95. 49 entries. 1804-1911. Regional.)
- 1532 WIELAND, G. R. La flora liasica de la Mixteca Alta. México, 1914, 165 pp. Mexico. Inst. geol., Bol. 31. (Literature, 124-126, 160-162. 64 entries. 1834-1913. General.)
- See 123, 197, 217, 220, 225, 227, 266, 283, 335, 442, 453, 493, 495, 667b, 668, 831, 849a, 853, 885, 890, 894, 977, 1016, 1020, 1125, 1135, 1164, 1180, 1219, 1334, 1344, 1387, 1511d, 1516, 1575, 1682, 1683, 1684, 1711, 1712, 1784, 1798, 1827, 1828, 2067a, 2068, 2069, 2075, 2082, 2093, 2153, 2184, 2185, 2191, 2196, 2197, 2206, 2234, 2252, 2295, 2420, 2475, 2514, 2520, 2522, 2523, 2589, 2591, 2594, 2597, 2626, 2639, 2884, 2887.
- KAISER WILHELMS-LAND.** See NEW GUINEA.
- KAMERUN.** See 104, 107, 1563.
- KANSAS.**
- 1533 ADAMS, G. I., GIRTY, G. H., and WHITE, DAVID. Stratigraphy and paleontology of the Upper Carboniferous rocks of the Kansas section. Washington, 1903, 123 pp. U. S. Geol. Surv., Bull. 211. (Publ., 17-27. 26 entries. 1858-1901. Footnotes.)
- 1534 ROGERS, A. F. Minerals of the Galena-Joplin lead and zinc district. Kansas Geol. Surv., Vol. 8, 1904: 506-509. (21 entries. 1873-1900. Regional.)
- 1535 TWENHOFEL, W. H. The Comanchean of central Kansas. Kansas Acad. Sci., Trans. 28, 1918: 223. (15 entries. 1868-1905. Regional.)
- See 655, 852, 1352, 2016, 2379, 2772, 2920.
- KAOLIN.**
- 1536 BARNITZKE, J. E. Über das Vorkommen der Porzellanerde bei Meissen und Halle a. S. Zeit. f. prak. Geol., 17, 1909-457. (22 entries. 1862-1908. Select.)
- 1537 GRÖNWALL, K. A. Nordöstra Skånes kaolin- och kritbildningar samt deras praktiska användning. Stockholm, 1915, 185 pp. Sweden. Sver. geol. Undersök., C. 261. Årsbok 8 (1914), no. 2. (Literature, 183-185. 37 entries 1767-1913. Regional.)
- 1538 HOWE, J. A. A handbook to the collection of kaolin, china-clay and china-stone, in the Museum of practical geology. . . London, 1914, 271 pp. (Bibl., 254-259. 155 entries. 1873-1914. General.)
- 1539 RÖSLER, H. Beiträge zur Kenntnis einiger Kaolinlagerstätten. N. J. f. Min., B. B. 14, 1901: 231-243. (303 entries. 1792-1901. General.)
- 1540 STAHL, ALFRED. Die Verbreitung der Kaolinlagerstätten in Deutschland. Berlin, 1912, 135 pp. Arch. Lagerstättenf., 12. (Literature, v-viii. 107 entries. 1830-1911. Regional.)
- See 1427b.
- KARST.**
- 1541 NOPCSA, F. Baron. Karsthypothesen. Austria. Geol. Reichsanst., Verh. 1918: 123. (14 entries. 1895-1916. General.)
- 1542 TEPPNER, W. Die Karstwasserfrage. Geol. Rundsch., 4, 1913: 424-426. (60 entries. 1878-1913. General.)
- See 369, 647, 648.
- KASHMIR.** See INDIA.
- KATANGA.** See BELGIAN KONGO.
- KENTUCKY.**
- 1543 ASHLEY, G. H., and GLENN, L. C. Geology and mineral resources of part of the Cumberland Gap coal field, Kentucky. Washington, 1906, 239 pp. U. S. Geol. Surv., Prof. Paper 49. (Literature, 13-14. 8 entries. 1888-1902. Regional.)
- 1544 JILLSON, W. R. A bibliography of Kentucky petroleum, natural gas, asphalt and oil shale. Ky. Dept. Geol. and Forest., Bull. ser. 5, 4, 1920: 252-262. (129 entries. 1856-1920. Regional.)
- 1545 JILLSON, W. R. A bibliography of the several books, reports, papers and maps relating to geology. Frankfort, Ky., 1920, 7 pp. Ky. Geol. Surv., Ser. 6 (Pamphlet 1). (33 entries. 1917-20. Regional.)
- 1546 MATSON, G. C. Water resources of the Blue Grass region, Kentucky . . . Washington, 1909. 223 pp. U. S. Geol. Surv., Water-supply Paper 233. (List of papers . . . 8-9. 36 entries. 1856-1905. Regional.)
- 1547 MILLER, A. M. The geology of Kentucky. Bibliography of literature referring to the geology

- of Kentucky. 1809-1919. Ky. Geol. Surv., Ser. V. Bull. 2, 1919: 351-392. (536 entries. 1809-1919. Regional.)
- 1548 SCOTT, D. H., and JEFFREY, E. C. On fossil plants, showing structure, from the base of the Waverley shale of Kentucky. Roy. Soc. Lond., Phil. Trans. B. 205, 1914: 366-367. (20 entries. 1856-1913. Citations.)
- 1549 SHAW, E. W., and MATHER, K. F. The oil fields of Allen county Kentucky with notes on the oil geology of adjoining counties. Washington, 1919, 126 pp. U. S. Geol. Surv., Bull. 688. (Bibl., 8-15. 18 entries. 1866-1918. Regional.)
- 1550 ULRICH, E. O., and SMITH, W. S. T. The lead, zinc, and fluorspar deposits of western Kentucky. Washington, 1905, 218 pp. U. S. Geol. Surv., Prof. Paper 36. (Literature, 16-21. 11 entries. 1818-1902. Footnotes.)
See 728, 729, 739, 751, 859, 1299, 2160, 2657, 2920.
- KOREA.**
- 1551 YABE, H. Mesozoic plants from Korea. Tokyo. Univ. Coll. Sci., Journ. 20, art. 8, 1905: 55-58. (58 entries. 1838-1904. General.)
See 837.
- LAKE DISTRICT.** (England). See 1028.
- LAKES.**
- 1552 JEHU, T. J. A bathymetrical and geological survey of the lakes of Snowdonia and eastern Carnarvonshire. Roy. Soc. Edinb., Trans. 40-II, 1901-02: 420-423. (12 entries. 1874-1900. Regional.)
- 1553 LEVERETT, FRANK. Report on the surface geology of Alcona County, Michigan. Mich. Geol. Surv., Rept., 1901: 51-53. (54 entries. 1850-1901. Footnotes.)
See 1881, 1882, 1883.
- LAMELLIBRANCHIATA.**
- 1554 BÖHM, JOH. Zusammenstellung der Inoceramen der Kreideformation. Prussia. Geol. Landesanst. Jahrb. 32-I, 1913: 376-386. (121 entries. 1813-1911. General.)
- 1555 ETHERIDGE, R., jr., and DUN, W. S. A monograph of the Carboniferous and Permo-Carboniferous invertebrata of New South Wales. Vol. II.—Pelecypoda. Part II.—Eurydesma. Sydney, 1910, 75 pp. New South Wales Geol. Surv., Mem. Pal. 5. (History of Eurydesma, 41-46. 30 entries. 1838-1903. Footnotes.)
- 1556 HENNIG, ANDERS. Revision of lamellibranchiata i Nilssons "Petridicata suecana formationis cretaceae." Lund, 1897, 66 pp. Fysiogr. Sällsk. Lund Handl., 8, 1897. (Literature, 4-5. 57 entries. 1812-96. General.)
- 1557 RÜBENSTRUNK, ERNST. Beitrag zur Kenntnis der deutschen Trias-Myophorien. Baden. Geol. Landesanst., Mitth. 6, 1912: 90-95. (101 entries. 1820-1907. Regional.)
- 1558 WOODS, HENRY. A monograph of the Cretaceous Lamellibranchia of England. 2 vols. London, 1899-1913. Palaeont. Soc. Publ., (Bibl., v. 1: xi-xlii; v. 2: 449-461. 713 entries. 1779-1912. General.)
See 1231.
- LAMPROPHYRE.** See 2145, 2389.
- LAPLAND.**
- 1559 HOLMQUIST, P. J. Die Hochgebirgsbildungen am Torne Träsk in Lapland. Geol. Fören. Stockh. Förh., 32-2, 1910: 982-983. Int. Geol. Cong., XI. Stockholm, 1910. Livret-guide no. 6: 70-71. (20 entries. 1877-1910. Regional.)
- 1560 LUNDBOHM, HJ. Sketch of the geology of the Kiruna district. Geol. Fören. Stockh. Förh., 32-2, 1910: 788. (12 entries. 1891-1907. Regional.)
- 1561 RASSMUS, H. Die magmatischen Eisenerzausscheidungen Lapplands. Geol. Rundsch., 4, 1913: 250-251. (25 entries. 1907-13. Regional.)
- 1562 STUTZER, O. Geologie und Genesis der lappländischen Eisenerzlagerstätten. N. J. f. Min., B. B. 24, 1907: 551-554.
See also SCANDINAVIA.
- LATERITE.**
- 1563 FERMOR, L. L. What is laterite? Geol. Mag., 8, 1911: 454-462, 507-516, 559-566. (43 entries. 1883-1910. Footnotes.)
- 1563a GUILLEMAIN, C., ed. Beiträge zur Geologie von Kamerun. Berlin, 1909, 466 pp. Prussia. Geol. Landesanst., Abh. n. f. 62. (Literature, 242-246. 76 entries. 1851-1908. General.)
- 1564 MEIGEN, W. Laterite. Geol. Rundsch., 2, 1911: 197-198. (40 entries. 1889-1911. General.)
- 1565 STREMMER, H. Laterit und Terra rossa als illuviale Horizonte

- humoser Waldböden. Geol. Rundsch., 5, 1915: 480-481. (24 entries. 1870-1914. General.)
- LATVIA.**
- 1566 LINSTOW, OTTO v. Der Krater von Sall auf Oesel. Centralb. f. Min., 1919: 339. (13 entries. 1827-1918. Regional.)
- LEAD ORES.**
- 1567 HALL, T. C. F. Lead ores. Imp. Inst. Mon., Lead ores, 1921: 123-127. (82 entries. 1864-1920. Regional.)
- 1568 U. S. GEOLOGICAL SURVEY. Survey publications on lead and zinc. *I*ts. Min. Res., 1914-I, 1916: 916-919. (102 entries. 1882-1915. Regional.)
See 782, 1304, 1305, 1406, 1411, 1511, 1534, 1550, 1740a, 1816, 2059, 2285, 2490, 2651, 2669, 2788, 2837, 2838, 2890, 2893, 2893a.
- LECH ALPS.** See 145.
- LEPONTIAN ALPS.** See 178, 183.
- LEUCITE.**
- 1569 KLEIN, C. Mineralogische Mittheilungen XV. N. J. f. Min., B. B. 11, 1897-1898: 476-477. (34 entries. 1884-97. General.)
- LEUCITE ROCKS.** See 1505, 2145.
- LIBERIA.** See 109.
- LIBYA.**
- 1569a *VINASSE, DE REGNY, P. E. Libya italica, terreni ed acque, vita e colture della nuova colonia, con appendice di ricerche ed osservazioni originali ed analisi di terreni fatte dall'autore durante la sua permanenza in Tripolitania. Milano, 1913, 214 pp. (Bibl. geol. della Libia Italiana: 40-44.)
- 1569b *ZACCAGNA, DOMINICO, and others. Itinerari geologici nella Tripolitania occidentale. (Bibliographies interspersed.)
See also WEST AFRICA.
- LIGNITE.** See 731, 734, 736, 740, 1041, 1482, 1772, 1815, 2498, 2798.
- LIGURIA.** See 1470.
- LIMBURGITE.** See 2145.
- LIME and LIMESTONE.**
- 1570 BURCHARD, E. F. Lime. U. S. Geol. Surv., Min. Res. 1911-II, 1912: 717-718. (51 entries. 1893-1912. General.)
- 1571 OSTEN-SACKEN, O. B., VON DER. Beiträge zur Kenntnis einiger vorwiegend aus zoogenen Komponenten aufgebauter Kalksteine. Berlin, [1914 or 1915], 154 pp. (Literature, 140-152. 405 entries. 1808-1912. General.)
- 1572 [STONE, R. W.] Bibliography of survey publications relating to lime. U. S. Geol. Surv., Min. Res. 1912-II, 1913: 668. (24 entries. 1903-13. Regional.)
See 289, 654a, 1100a, 1934, 2128, 2568.
- 1572a TUÍAN, FRAN. Die kalkstein und dolomite des Kroatischen Karstgebietes. Annales géologiques de la péninsule balkanique, 6, fasc. 2, 1911: 618-623. (86 entries. 1861-1909. Regional.)
- LIMONITE.** See IRON ORES.
- LIMNOLOGY.** See LAKES.
- LIPARI ISLANDS.**
- 1573 FIORE, O. DE. I fenomeni avvenuti a Vulcano (Isole Eolie) dal 1890 al 1913. Parte II. Zeit. f. Vulkan., 2, 1915-16: 64-66. (33 entries. 1890-1914. Regional.)
- LIPPE.** See 2886.
- LITHIUM.**
- 1574 SCHALLER, W. T. Lithium minerals. U. S. Geol. Surv., Min. Res. 1916-II, 1919: 17. (5 entries. 1908-15. General.)
- LITHUANIA.**
- 1575 BODEN, KARL. Die fauna des unteren Oxford von Popliany in Litauen. Geol. u. paläont. Abh., n. f. 10, hft. 2, 1911: 4-10. (269 entries. 1818-1910. Regional.)
See 2118a.
- LOESS.**
- 1576 CABLE, E. J. Bibliography of the loess. Iowa Acad. Sci., Proc. 23, 1916: 159-162. (66 entries. 1870-1914. General.)
- 1577 FULLER, M. L., and CLAPP, F. G. Marl-loess of the lower Wabash valley. Geol. Soc. Am., Bull. 14, 1903: 174-176. (35 entries. 1867-1900. General.)
- LOMBARDY ALPS.** See 179.
- LORRAINE.** See ALSACE LORRAINE.
- LOUISIANA.**
- 1578 *HARRIS, G. D., and VEATCH, A. C. Historical review [of geological literature of Louisiana]. Louisiana state experiment station. Pt. V, 1899: 11-44.
- 1579 VAUGHAN, T. W. A brief contribution to the geology and paleontology of northwestern Louisiana. Washington, 1896, 65 pp. U. S. Geol. Surv., Bull. 142. (Bibl., 27-30. 26 entries. 1834-96. Regional.)
- 1580 VEATCH, A. C. Geology and underground water resources of northern Louisiana and southern

*Not seen.

- Arkansas. Washington, 1906, 422 pp. U. S. Geol. Surv., Prof. Paper 46. (Literature, 11-13. 18 entries. 1860-1904. Regional.)
See 2379.
- LUGANER ALPS.** *See* 147.
- LUXEMBURG.**
- 1581 RICHTER, R. Zur Stratigraphie und Tektonik der Osling-Eifel-Mulde. Centralb. f. Min., 1919: 60-62. (38 entries. 1876-1916. Regional.)
See 197
- LYBIA.** *See* LIBYA
- MACEDONIA.** *See* 1590
- MACKENZIE RIVER.**
- 1582 CAMSELL, CHARLES, and MALCOLM, WYATT The Mackenzie river basin. Ottawa, 1919, 154 pp. Canada Geol. Surv., Mem. 108. Geol. ser. 92. (Bibl., 5-9. 73 entries. 1796-1917. Regional.)
- MADAGASCAR.**
- 1583 GAUTIER, E. F. Madagascar. Essai de géographie physique. Paris, 1902, 428 pp. (Bibl., 425-426. 16 entries. 1658-1892. Regional.)
- 1584 LEMOINE, PAUL. Étude géologiques dans le nord de Madagascar. Contributions a l'histoire géologique de l'Océan Indien. Lille, 1906, 520 pp. (Bib., [17]-54. 326 entries. 1819-1906. Regional.)
- 1585 LEMOINE, PAUL. Madagascar. Heidelberg, 1911, 44 pp. Handb. reg. Geol., 6 hft. (Bibl., 40-43. 101 entries. 1856-1910. Regional.)
See 101, 2123.
- MADEIRA ISLANDS.**
- 1586 JOKSIMOWITSCH, Z. J. Die zweite Mediterranstufe von Porto Santo und Selvagem. Deutsch. geol. Gesell., Zeit. 62, 1910: 96. (26 entries. 1846-1905. Regional.)
See 2844.
- MAGNESITE.**
- 1587 CULIN, F. L., jr. Magnesite, Tucson, Arizona, 1915-16, 10 pp. Ariz. Bur. Mines. Bull. 14, Min. tech. ser. 7. (15 entries. 1895-1914. General.)
- 1588 KRAFT, PH. Über die genetischen Beziehungen des dichten Magnesits zu den Mineralien der Nickelsilikatgruppe. Berlin, 1915, 115 pp. Arch. Lagerstat-tenf., 20. (Literature, 108-115. 179 entries. 1836-1913. General.)
- 1589 REDLICH, K. A. Die bildung des magnesits und sein natürliches vorkommen. Fortschr. Min. Krist. Petrogr., 4, 1914: 18-21. (54 entries. 1873-1913. Regional.)
- 1590 TEGENGREN, F. R. Järnmalms-och magnesitförekommsterna inom Kvikkjokks kapellag . . . Sweden. Syer. geol. undersök. C. 230. Årsbok 4 (1910), no. 2: 102, 105-106, 107, 109, 111, 115, 116-117, 118, 119, 121, 122, 123. (69 entries. 1866-1910. General.)
See 1740a.
- MAGNETITE.** *See* IRON ORES.
- MAINE.**
- 1591 BABB, C. C. Bibliography of Maine geology. Maine State water storage commission. Ann. Rept. 3, 1913: 185-242. (751 entries. 1837-1913. Regional. Mainly a geographical and mineralogical index.)
- 1592 EMMONS, W. H. Some ore deposits in Maine and the Milan mine, New Hampshire. Washington, 1910, 62 pp. U. S. Geol. Surv., Bull. 432. (Bibl., 8-10. 20 entries. 1837-1909. Regional.)
- 1593 SMITH, G. O., and WHITE, DAVID. The geology of the Perry basin in southeastern Maine. Washington, 1905, 107 pp. U. S. Geol. Surv., Prof. Paper 35. (Review of literature, 11-17. 23 entries. 1837-89. Regional.)
See 1315, 2107.
- MALAY ARCHIPELAGO.** *See* Borneo, Celebes, Java, Moluccas, Sumatra, Timor, etc.
- MALAY PENINSULA.**
- 1594 NEWTON, R. B. Notes on literature bearing upon the geology of the Malay Peninsula; with an account of a neolithic implement from that country. Geol. Mag., n. s. (IV) 8, 1901: 128-134. (16 entries. 1822-1900. Footnotes.)
- MALTA.**
- 1594a *GALEA, R. V. Geology of the Maltese archipelago, n. p. 1914; pp. 173-182. (Bibl., 173-175.)
- MAMMALS.**
- 1595 BATALLER, J. R. Mamífers fossils de Catalunya. Inst. Cat. Hist. Nat., Treb. 1918: 265-270. (85 entries. 1834-1916. General.)
- 1596 BOAS, J. E. V. Phylogenie der Wirbeltiere. Die Kultur der Gegenwart. 3 teil, 4 abt. 4bd'

*Not seen.

- 1914: 604-605. (50 entries. 1883-1913. General.)
- 1596a *BOULE, MARCELLIN. Mammifères fossiles de Tarija. Paris, 1920, 255 pp. (Bibliographical footnotes.)
- 1597 BROOM, ROBERT. . . . On the origin of mammals. Roy. Soc. Lond., Phil. Trans. B. 206, 1915: 33-39. (100 entries. 1876-1914. General.)
- 1598 DEPÉRET, CHARLES. Monographie de la faune de mammifères fossiles du ludien inférieur d'Euzet-Bains (Gard). Lyon. Univ., Ann. I, 40, 1917: 271-274. (64 entries. 1812-1915. General.)
- 1599 DOUGLASS, EARL. Fossil mammalia of the White River beds of Montana. Am. Phil. Soc., Trans. n. s. 20, 1902: 279. (12 entries. 1877-95. Regional.)
- 1600 FABIANI, RAMIRO. I mammiferi quaternari della regione Veneta Padua. Univ., Mem. Inst. geol. 5, 1917-1918: 172-173. (53 entries. 1786-1915. Regional.)
- 1601 GREGORY, W. K. The order of mammals. Am. Mus. Nat. Hist., Bull. 27, 1910: 469-513.
- 1602 HAGMANN, GOTTFRIED. Die diluviale wirbeltierfauna von Vöcklinshofen (Ober-Elsass). I. Teil. Strassburg, 1899, 136 pp. Alsace Lorraine. Geol. Landesanst., Abh. n. f. 3. (Literature, 116-122. 97 entries. 1824-95. General.)
- 1603 HARLÉ, EDOUARD. Les mammifères et oiseaux quaternaires connus jusqu'ici en Portugal, mémoire suivi d'une liste générale de ceux de la péninsule Ibérique. Portugal. Serv. geol., Comm. 8, 1910-11: 83-95. 47 entries. 1834-1909. Regional.)
- 1604 HAY, O. P. The Pleistocene mammals of Iowa. Iowa Geol. Surv., Vol. 23, 1914: 87-99. (141 entries. 1876-1913. Regional.)
- 1605 LECHE, WILHELM. Morphologisch-geographische formenreihen bei den Säugetieren. Lund, 1920, 76 pp. Lunds Univ. årsk. n. f. avd. 2, 16, no. 10. (Literature, 73-76. 94 entries. 1878-1918. General.)
- 1606 MATTHEW, W. D. Fossil mammals of the Tertiary of northeastern Colorado. Am. Mus. Nat. Hist., Mem. 1, pt. 7, 1901: 446-447. (46 entries. 1858-1901. General.)
- 1607 MATTHEW, W. D. New Sirenian from the Tertiary of Porto Rico, West Indies. N. Y. Acad. Sci., Ann. 27, 1916: 29. (8 entries. 1842-1912. General.)
- 1608 MAYET, LUCIEN. Étude des mammifères miocène des sables de l'Orléanais et des faluns de la Touraine. Lyon. Univ., Ann. I. 24, 1908: 323-329. (98 entries. 1786-1907. Regional.)
- 1609 NEWTON, E. T. On the remains of *Ursus etruscus* (*U. arvernensis*) from the Pliocene deposits of Tegelen sur Meuse. Geol.-mijn. Genoots. v. Neder. en Kol., Verh. Geol. ser. I, 1913: 254. (13 entries. 1872-1908. Select.)
- 1610 NORDMANN, V. Danmarks Patetedyt i Fortiden. Kjøbenhavn, 1905, 133 pp. Denmark geol. undersøg. III Raekke. 5. (Literature, 111-124. 129 entries. 1841-1905. Regional.)
- 1611 OSBORN, H. F. The age of mammals in Europe, Asia and North America. N. Y. 1910, 635 pp. (Bibl., 564-604. 605 entries. 1821-1910. General.)
- 1612 OSBORN, H. F. Cenozoic mammal horizons of western North America. With faunal lists of the Tertiary mammalia of the West by William Diller Matthew. Washington, 1909, 138 pp. U. S. Geol. Surv., Bull. 361. (Bibl., 9-18. 129 entries. 1871-1907. Regional.)
- 1613 OSBORN, H. F. Correlation between Tertiary mammal horizons of Europe and America. N. Y. Acad. Sci., Ann. 13, 1900: 59-64. (67 entries. 1854-99. General.)
- 1614 OSBORN, H. F. Origin of the mammalia. III. Occipital condyles of reptilian tripartite type. Am. Nat., 34, 1900: 947. (7 entries. 1880-99. General.)
- 1614a *PAN, ISMAEL DEL. Paleogeografía de los mamíferos de Europa y norte de Africa. Madrid, 1919, 99 pp. Comisión de investigaciones paleontológicas y prehistóricas. Memoria 21. (Bibl. at end of chapters.)
- 1615 PAVLOW, MARIE. Études sur l'histoire paléontologique des Ongulés. Soc. nat. Moscou, Bull. n. d. 14, 1899: 325-328. (89 entries. 1834-98. General.)

*Not seen.

- 1616 PAVLOW, MARIE. Revue de la littérature russe pour la paléontologie des mammifères. Ann. géol. et min. Russ. 1898-1900. v. 5, livr. 4-5, 1902: 6-10. 1901-06. v. 9, 1907: 139-146. (47 entries. 1898-1906. Regional.)
- 1617 QUACKENBUSH, L. S. Notes on Alaskan mammoth expeditions of 1907 and 1908. Am. Mus. Nat. Hist., Bull. 26, 1909: 128-130. (43 entries. 1839-1908. Regional.)
- 1618 REYNOLDS, S. H. A monograph of the British Pleistocene mammalia. Vol. II, part I. The cave hyaena. London, 1902, 25 pp. Palaeont. Soc. Publ. (Bibl., 23-25. 56 entries. 1737-1897. Regional.)
- 1619 REYNOLDS, S. H. A monograph of the British Pleistocene mammalia. Vol. II, part II. The bears. London, 1906, 35 pp. Palaeont. Soc. Publ. (Bibl., 32-35. 63 entries. 1672-1906. Regional.)
- 1620 REYNOLDS, S. H. A monograph of the British Pleistocene mammalia. Vol. II, part III. The Canidae. London, 1909, 28 pp. Palaeont. Soc. Publ. (Bibl., 25-28. 66 entries. 1758-1907. Regional.)
- 1621 REYNOLDS, S. H. A monograph of the British Pleistocene mammalia. Vol. II, part IV. The Mustelidae. London, 1912, 28 pp. Palaeont. Soc. Publ. (Bibl., 26-28. 53 entries. 1810-1910. Regional.)
- 1622 RICHTER, JOHANNES. Über Hoplophorus. Palaeontographica, 57, 1910-1911: [282]-283. (26 entries. 1862-1909. General.)
- 1623 SCHULTHESS, BETTY. Beiträge zur Kenntnis der Xenarthra auf Grund der "Santiago Roth'schen Sammlung" des zoologischen Museums der Universität Zürich. Genève, 1920, 119 pp. Soc. paléont. suisse, Mém. 44. (Literature, 113-116. 148 entries. 1817-1918. General.)
- 1624 SCOTT, H. H. A monograph of *Nototherium Tasmanicum* (Genus-Owen: sp. nov.). Hobart, 1915, 47 pp. Tasmania. Geol. Surv., Rec. 4. (15 entries. 1842-1914. General.)
- 1625 SCOTT, W. B. Mammalia of the Santa Cruz beds. Part I. Litopterna. Princeton Univ. Exp. Patagonia. Repts. 7, pt. 1, 1910: 155-156. (26 entries. 1855-1910. General.)
- 1626 SCOTT, W. B. Mammalia of the Santa Cruz beds. Part II. Toxodonta. Part III. Entelonychia. Princeton Univ. Exp. Patagonia. Repts. 6, pts. II-III; 1912: 299-300. (28 entries. 1884-1911. General.)
- 1627 SCOTT, W. B. Mammals of the Santa Cruz beds. I. Edentata. II. Insectivora. III. Glires. Princeton Univ. Exp. Patagonia. Repts. 5, 1903-05: 487-489. (42 entries. 1842-1904. General.)
- 1628 SIEGFRIED, HANS. Die Rinderschädel funde von Pasquart und deren Stellung zu den subfossilen und rezenten Rinderrassen. Zürich, 1907, 56 pp. Schw. paläont. Gesell., Abh. 34. (Literature, 55-56. 39 entries. 1847-1905. General.)
- 1629 SINCLAIR, W. J. Mammalia of the Santa Cruz beds. Marsupialia. Princeton Univ. Exp. Patagonia. Repts. 4, 1906: 458-459. (20 entries. 1838-1905. General.)
- 1630 SINCLAIR, W. J. Mammalia of the Santa Cruz beds. Part I. Typotheria. Princeton Univ. Exp. Patagonia. Repts. 6, pt. 1, 1909: 109-110. (18 entries. 1882-1908. General.)
- 1631 SOERGEL, W. Elephas trogontherii Pohl. und Elephas antiquus Falc., ihre Stammesgeschichte und ihre Bedeutung für die Gliederung des deutschen Diluviums. Palaeontographica, 60, 1913: 112-114. (78 entries. 1839-1910. General.)
- 1632 STEFANO, GIUSEPPE DE. I mammiferi preistorici dell'Imolese. Palaeont. ital., 17, 1911: 50-52. (57 entries. 1821-1910. General.)
- 1633 STEHLIN, H. G. Ueber die Geschichte des Suiden-Gebisses. 2e teil. Zürich, 1900. Schw. paläont. Gesell., Abh. 27. (Literature, 499-507. 226 entries. 1820-98. General.)
- 1634 STROMER v. REICHENBACH, ERNST. Lehrbuch der Paläozoologie. II. teil: Wirbeltiere. Leipzig, 1912, 325 pp. (Literature, 316-317. 449 entries. 1883-1912. General. New literature on vertebrata, 12-14. Fossil fishes, 48-54. Amphibia, 63-64. Reptiles, 126-132. Fossil birds, 147-148. Fossil mammals, 246-253.)

* Not seen.

- 1635 STUDER, TH. Die praehistorischen Hunde in ihrer Beziehung zu den gegenwärtig lebenden Rassen. Zürich, 1901, 137 pp. Schw. paläont. Gesell., Abh. 28. (Literature, 133-137. 142 entries. 1776-1901. General.)
- 1635a *TROUESSART, E. L. Catalogus mammalium tam viventium quam fossilium. 2 vols. Berolini, 1898-99. 1469 pp. (Bibliographical references interspersed.)
- 1635b * ———— Quinquennale supplementum, anno 1904. Berolini, 1904-05. 929 pp.
- MAMMOTH CAVE.** See 645.
- MAN, PREHISTORIC.**
- 1636 BARBOUR, E. H. Evidence of loess man in Nebraska. Lincoln, Neb., 1907; 331-348. Nebraska Geol. Surv., 2, pt. 6. (Bibl., 348. 10 entries. 1906-07. Regional.)
- 1637 NÜESCH, JAKOB. Das Schweizerbild, eine Niederlassung aus paläolithischer und neolithischer Zeit. 2d ed. Zürich, [1902], 368 pp. (Literature, [276]-279. 66 entries. 1864-94. Regional.)
- 1637a OSBORN, H. F. Men of the old stone age, their environment, life and art. N. Y. 1915: 545 pp. (Bibl., 513-532. 264 entries. 1740-1915. General.)
- 1638 SELLARDS, E. H. Literature relating to human remains and artifacts at Vero, Florida. Florida Geol. Surv., Ann. Rept. 12, 1919: 2-4. Am. Journ. Sci., 4th ser. 47, 1919: 359-360. (24 entries. 1916-19. Regional.)
- 1639 WINCHELL, N. H. Pre-Indian inhabitants of North America. Records of the past, 6, 1907: 180-181. (23 entries. 1876-1905. General.)
- See 274, 1291, 1503, 1594, 1628.
- MANGANESE.**
- 1640 ALLEN, M. A., and BUTLER, G. M. Manganese. Tucson., 1918-19, 32 pp. Ariz. Univ., Bull. 91. Min. tech. ser. 19. (Bibl. 32. 20 entries. 1913-18. General.)
- 1640a CURTIS, A. H. Manganese ores. Imp. Inst. Mon. Manganese ores, 1919: 112-118. (159 entries. 1905-18. General.)
- 1641 FERMOR, L. L. The manganese-ore deposits of India. Calcutta, 1909, 1294 pp. India Geol. Surv., Mem. 37. (Bibl., App. I: 1161-1174. 263 entries. 1813-1909. Regional. List of literature of foreign manganese-ore deposits, pp. 12-16.)
- 1642 HARDER, E. C. Manganese deposits of the United States with sections on foreign deposits, chemistry, and uses. Washington, 1910, 298 pp. U. S. Geol. Surv., Bull. 427. (Bibl., 284-288. 158 entries. 1786-1909. General.)
- 1642a *HARDER, E. C., and HEWETT, D. F. Recent studies of domestic manganese deposits. Am. Inst. Min. Eng., Trans. 63, 1920: 3-50.
- 1643 HEWETT, D. F. Manganese and manganiferous ores. U. S. Geol. Surv., Min. Res. 1916-I, 1919: 752-756. (86 entries. 1892-1918. General.)
- 1644 JOSEPH, P. E. Manganese. Tucson, Arizona, 1915-16, 11 pp. Ariz. Univ., Bull. 4. Min. tech. ser. 2. (12 entries. 1895-1912. General.)
- 1645 WELD, C. M. and others. Manganese: uses, preparation, mining costs and the production of ferroalloys. Washington, 1920, 209 pp. U. S. Bur. Mines, Bull. 173. (Bibl., 200-201. 21 entries. 1897-1917. Select.)
- 1646 WHEELER, H. L., comp. Bibliography on the occurrence, geology, and mining of manganese, with some references on its metallurgy and uses. Colo. Geol. Surv., Bull. 15, 1919: 54-69. Econ. Geol., 14, 1919: 245-261. (240 entries. 1890-1919. General.)
- See 301, 1740a, 1954, 2370, 2512.
- MANITOBA.**
- 1647 ALCOCK, F. J. The Reed-Wekusko map-area northern Manitoba. Ottawa, 1920, 47 pp. Canada Geol. Surv., Mem. 119. Geol. ser. 101. (Bibl., 3-5. 35 entries. 1906-19. Regional.)
- 1648 BRUCE, E. L. Amisk-Athapapuskow lake district. Ottawa, 1918, 91 pp. Canada Geol. Surv., Mem. 105. Geol. ser. 87. (Bibl., 6-7. 22 entries. 1900-18. Regional.)
- 1649 DE LURY, J. S. Mineral prospects in southeastern Manitoba, Rice Lake, Maskwa River and boundary districts. Manitoba, 1920, 55 pp. (Bibl., 53. 22 entries. 1914-20. Regional.)
- See 618, 2032.
- MAPS.** See 1660, 1899, 1965, 2207, 2869, 2870.
- MARBLE.**
- 1650 DALE, T. N. The commercial marbles of western Vermont. Wash-

*Not seen.

- ington, 1912, 170 pp. U. S. Geol. Surv., Bull. 521. (Literature, 55-60. 139 entries. 1825-1912. General.)
- 1651 DALE, T. N. The commercial marbles of western Vermont. Vermont. State Geol., Rept. 9, 1914-1915: 48-54. (148 entries. 1812-1914. General.)
- 1652 PROUTY, W. F. Preliminary report on the crystalline and other marbles of Alabama. University, Ala., 1916, 212 pp. Ala. Geol. Surv., Bull. 18. (References, 120-122. 37 entries. 1832-1916. General.)
See 875, 1935, 2794.
- MARL.**
- 1653 *BOSWORTH, T. O. The Keuper marls around Charnwood . . . Being the results of researches in Leicestershire 1904-1911. Leicester, 1912, 129 pp. (Bibl., 11-14.)
- 1653a PARSONS, A. L. Greensand marl. U. S. Geol. Surv., Min. Res. 1901, 1902: 827. (11 entries. 1836-1901. Regional.)
- MARMITES.** See Pot Holes.
- MARTINIQUE.** See 2124.
- MARYLAND.**
- 1654 BASSLER, R. S. The Cambrian and Ordovician deposits of Maryland. Md. Geol. Surv., Cam. and Ord. 1919: 34-44. (67 entries. 1788-1913. Regional.)
- 1655 CLARK, W. B. The Upper Cretaceous deposits of Maryland. Md. Geol. Surv., U. Cret. 1916: 39-50. (99 entries. 1809-1914. Regional.)
- 1655a CLARK, W. B. Publications of the Maryland Geological Survey, Maryland State Weather Service, and Maryland Forestry Bureau. J. H. U., Circ. 1907, no. 7: 5-20.
- 1656 CLARK, W. B., BIBBINS, A. B., and BERRY, E. W. The Lower Cretaceous deposits of Maryland. Md. Geol. Surv., L. Cret. 1911: 47-56. (91 entries. 1799-1911. Regional.)
- 1657 CLARK, W. B., and MARTIN, G. C. The Eocene deposits of Maryland. Md. Geol. Surv., Eocene, 1901: 31-43. (113 entries. 1809-1900. Regional.)
- 1658 LITTLE, H. P. Development of knowledge concerning the physical features of Anne Arundel county with bibliography. Md. Geol. Surv., Anne Arundel county, 1917: 34-46. (104 entries. 1624-1916. Regional.)
- 1659 MARTIN, G. C. The geology of Garrett county. Md. Geol. Surv., Garrett county, 1902: 67-81.
- 1660 MATHEWS, E. B. Bibliography and cartography of Maryland including publication relating to the physiography, geology and mineral resources. Md. Geol. Surv., Vol. 1, 1897: 229-401. (ca 1,500 entries. 1526-1896. Regional.)
- 1661 MILLER, B. L. Development of knowledge concerning the physical features of Prince George's county, with bibliography. Md. Geol. Surv., Prince George's county, 1911: 33-68. (183 entries. 1624-1910. Regional.)
- 1662 O'HARRA, C. C. The geology of Allegany county. Md. Geol. Surv., Allegany county, 1900: 69-85. (177 entries. 1824-1899. Regional.)
- 1662a PROSSER, C. S. Historical review and bibliography. Md. Geol. Surv., Lower Devonian. Text. 1913: 55-66. (85 entries. 1787-1912. Regional.)
- 1663 SHATTUCK, G. B. Development of knowledge concerning the physical features of Calvert county, with bibliography. Md. Geol. Surv., Calvert county, 1907: 39-53. (139 entries. 1624-1906. Regional.)
- 1664 SHATTUCK, G. B. Development of knowledge concerning the physical features of Cecil county, with bibliography. Md. Geol. Surv., Cecil county, 1902: 49-62. (139 entries. 1624-1902. Regional.)
- 1665 SHATTUCK, G. B. Development of knowledge concerning the physical features of St. Mary's county, with bibliography. Md. Geol. Surv., St. Mary's county, 1907: 38-53. (147 entries. 1624-1906. Regional.)
- 1666 SHATTUCK, G. B. The Miocene deposits of Maryland. Geological and paleontological relations, with a review of earlier investigations. Md. Geol. Surv., Miocene, 1904: xli-lxiv. (252 entries. 1669-1903. Regional.)
- 1667 SHATTUCK, G. B. The Pliocene and Pleistocene deposits of Maryland . . . Md. Geol. Surv., Plio. and

*Not seen.

Pleist. 1906: 40-56. (119 entries. 1624-1903. Regional.)
See 330, 557, 655, 702, 859, 1319, 1954.

MASSACHUSETTS.

- 1668 BURR, H. T. The structural relations of the amygdaloidal melaphyr in Brookline, Newton, and Brighton, Mass. Harvard Univ. Mus. Comp. Zool., Bull. 38, Geol. ser. 5, no. 2, 1901: 68. (7 entries. 1880-1900. Regional.)
- 1669 CLAPP, F. G. Geological history of the Charles River in Massachusetts. Am. Geol., 29, 1902: 232-233. (30 entries. 1887-1901. Regional.)
- 1670 CROSBY, W. O. Geology: South shore [vicinity of Boston, Mass.] Am. Assoc. Adv. Sci., 50, 1898, Guide to localities: 21-31. (8 entries. n. d. Regional.)
- 1671 EMERSON, B. K. The geology of eastern Berkshire county, Massachusetts. Washington, 1899, 139 pp. U. S. Geol. Surv., Bull. 159. (Bibl., 128-135. 89 entries. 1734-1895. Regional.)
- 1672 EMERSON, B. K. Geology of Old Hampshire county, Massachusetts, comprising Franklin, Hampshire, and Hampden counties. Washington, 1898, 790 pp. U. S. Geol. Surv., Mon. 29. (Publications, 762-782. 416 entries. 1734-1879. Regional.)
- 1673 GOLDTHWAIT, J. W. The sand plains of glacial Lake Sudbury. Harvard Univ. Mus. Comp. Zool., Bull. 42. Geol. ser. 6, no. 6, 1905: 299-301. (35 entries. 1887-1904. Regional.)
- 1674 GRABAU, A. W. Paleontology: eastern Massachusetts. Am. Assoc. Adv. Sci., 50, 1898, Guide to localities: 54-62. (86 entries. 1834-96. Regional.)
- 1675 MANSFIELD, G. R. The origin and structure of the Roxbury conglomerate. Harvard Univ. Mus. Comp. Zool., Bull. 49. Geol. ser. 8, no. 4, 1906: 261-271. (159 entries. 1753-1905. General.)
- 1676 SEARS, J. H. The physical geography, geology, mineralogy and paleontology of Essex county, Massachusetts. Salem, Mass., 1905, 418 pp. (Bibl., 406-411. 108 entries. n. d. Regional.)
- 1677 WHITE, T. G. A contribution to the petrography of the Boston basin. Boston Soc. Nat. Hist. Proc. 28, 1899: 151-156. (87 entries. 1809-96. Regional.)
- 1678 WILSON, A. W. G. The Medford dike area. Boston Soc. Nat. Hist., Proc. 30, 1901: 373-374. (18 entries. 1818-98. Regional.)
- 1679 WILSON, J. H. The glacial history of Nantucket and Cape Cod. With an argument for a fourth center of glacial dispersion in North America. N. Y., 1906, 90 pp. (Literature, 88-90. 53 entries. 1861-1905. Regional.)
- 1680 WOODMAN, J. E. Geology: North shore [vicinity of Boston, Mass.] Am. Assoc. Adv. Sci., 50, 1898, Guide to localities: 9-20. (13 entries. n. d. Regional.)
- 1681 WOODWORTH, J. B. Geology of the northern and eastern portions of the Narragansett basin. [With a bibliography of the Cambrian and Carboniferous rocks.] U. S. Geol. Surv., Mon. 33, 1899: 212-214. (65 entries. 1829-94. Regional.)
See 1314, 1854.

MEDUSAE.

- 1682 GORTANI, MICHELE. Osservazioni sulle inpronte medusoidi del Flysch (Lorenzina e Atollites). Riv. ital. paleont., 26, 1920: 56-72. (65 entries. 1877-1917. Footnotes.)
- 1683 MAAS, OTTO. Ueber eine neue Medusengattung aus dem lithographischen Schiefer. N. J. f. Min., 1906-2: 99. (10 entries. 1865-1903. General.)
- 1684 MAAS, OTTO. Ueber Medusen aus dem Solenhofer Schiefer und der unteren Kreide der Karpathen. Palaeontographica, 48, 1902: 320. (16 entries. 1865-1901. General.)

MELAPHYRE. *See* 1668, 2145.

MELILITE BASALT. *See* 2145.

MELTS. *See* 1760a, 1761.

MERCURY.

- 1685 BRADLEY, W. W. Quicksilver resources of California with a section on metallurgy and ore-dressing. Sacramento, 1918. 389 pp. Cal. State Min. Bur., Bull. 78. (Bibl., 354-362. 300 entries. 1546-1918. General.)
- 1686 CASTRO, C. DE. Le miniere di mercurio del Monte Amiata. Roma, 1914, 203 pp. Italy. Com. geol., Mem. carta geol. 16. (Bibl., 199-203. 116 entries. 1550-1914. Regional.)
- 1687 McCASKEY, H. D. Quicksilver. U. S. Geol. Surv., Min. Res. 1910-I, 1911: 705-710; 1911-I, 1912:

- 920-921. (183 entries. 1854-1910. Regional.)
- 1687a TEGENGREN, F. R. The quicksilver deposits of China. *China Geol. Surv.*, Bull. 2, 1920: [36]. (14 entries. 1879-1915. Regional.)
See 1740a.
- MESOLITE.**
- 1688 GÖRGEY, R. Über Mesolith. *T. M. P. M.*, n. f. 28, 1909: 104-106. (81 entries. 1816-1908. General.)
- MESOPOTAMIA.**
- 1689 GREAT BRITAIN. ADMIRALTY. Geology of Mesopotamia and its borderlands. London, [1920], 116 pp. (Bibl., 91-110. 253 entries. 1836-1915. Regional.)
See 2642.
See also ARABIA.
- MESOTHORIUM.** *See* 1806.
- MESOZOIC.** *See* 99, 105, 192, 245a, 333, 657, 667, 981, 1166a, 1431, 1469, 1551, 1914, 2101, 2265, 2289, 2290, 2335, 2385, 2419, 2556, 2561.
See also SUBDIVISIONS.
- METALS.**
- 1690 EVANS, ISABEL F., *Comp.* Publications by survey authors on metals and nonmetals except fuels. *U. S. Geol. Surv.*, Bull. 580, 1915: 413-455. (ca 1,200 entries. 1885-1914. Regional.)
- METAMORPHICS.** *See* 1888, 1896.
- METAMORPHISM.**
- 1691 BECKE, F. Fortschritte auf dem Gebiete der Metamorphose. *Fortschr. Min. Krist. Petrogr.*, 1, 1911: 253-256. (87 entries. 1909-11. General.)
- 1692 BUDDINGTON, A. F. Pyrophyllitization, pinitization, and silicification of rocks around Conception Bay, Newfoundland. *Journ. Geol.*, 24, 1916: 152. (14 entries. 1880-1914. Regional.)
- 1693 DALY, R. A. Metamorphism and its phases. *Geol. Soc. Am.*, Bull. 28, 1917: 416-418. (83 entries. 1847-1915. General.)
- 1694 LEITH, C. K., and MEAD, W. J. Metamorphic geology, New York, 1915. 337 pp. (Many references in text and footnotes.)
- 1695 NIGGLI, PAUL. Die physikalisch-chemische Bedeutung der Gesteinsmetamorphose. *Sächs. Akad. Wissen. Leipzig, Ber. u. d. Verh.* 67, 1915: 267-269. (103 entries. 1867-1914. General.)
- 1695a NIGGLI, PAUL and JOHNSTON, JOHN. Einige physikalisch-chemische Prinzipien der Gesteinsmetamorphose. *N. J. f. Min.*, B. B. 37, 1914: 495-576. (ca 80 entries. 1833-1914. Footnotes.)
- 1696 SANDBERG, C. G. S. Over het verband tusschen metamorphisme en tectoniek in intensief gevouwen gevieden, en den tertiären ouderdom der Alpengranieten. *Geol.-mijn. Genoots. v. Neder. en Kol.*, Verh. Geol. ser. II, 1915: 143-144. (42 entries. 1847-1914. General.)
See 399, 460a, 873, 874, 875, 876, 877, 938, 1134, 2217, 2231, 2265, 2329, 2400, 2441, 2578, 2588, 2617, 2853, 2854, 2903.
See also CRYSTALLINE SCHISTS.
- METEORITES.**
- 1697 BERWERTH, FRIEDRICH. Fortschritte in der Meteoritenkunde seit 1900. *Fortschr. Min. Krist. Petrogr.*, 1, 1911: 257-276; 2, 1912: 337-229; 3, 1913: 244-248. (483 entries. 1900-13. General.)
- 1698 BERWERTH, F. Die Meteoriten-sammlung des naturhistorischen Hofmuseums als Born der Meteoritenkunde. *Akad. Wissensch. Wien. Sitz. Abt. I*, 127, 1918: 775-795. (203 entries. 1856-1909. General.)
- 1699 MICHEL, H. Die feldspate der meteoriten. *T. M. P. M.*, n. f. 31, 1912: 616-623. (176 entries. 1862-1913. General.)
- METEOROLOGY.** *See* 96.
- MEXICO.**
- 1700 AGUILAR Y SANTILLÁN, RAFAEL. Bibliografía geológica y minera de la República mexicana. *México*, 1898, 158 pp. *Mexico. Inst. geol.*, Bol. 10. (1953 entries. 1556-1896. Regional.)
- 1701 AGUILAR Y SANTILLÁN, RAFAEL. Bibliografía geológica y minera de la República mexicana completada hasta el año de 1904. *México*, 1908, 330 pp. *Mexico Inst. geol.*, Bol. 17. (4252 entries. 1556-1904. Regional.)
- 1702 AGUILAR Y SANTILLÁN, RAFAEL. Bibliografía geologica y minera de la Republica Mexicana. *México*, 1918, 78 pp. *Mexico Dept. minas*, Bol. min., 5, 1918, nos. 3-6; 6, 1918, nos. 1-6. (1591 entries. 1915-18. Regional.)
- 1703 AGUILAR Y SANTILLÁN, RAFAEL. Bibliography of Mexican geology and mining. *Am. Inst. Min. Eng.*, Trans. 32, 1902: 605-680. (1,725 entries. 1556-1902. Regional.)

- 1704 AGUILERA, J. G. The Carboniferous deposits of northern Coahuila. *Eng. and Min. Journ.*, 88, 1909: 730. (7 entries. 1866-1900. Footnotes.)
- 1705 AGUILERA, J. G. Les gisements carbonifères de Coahuila. *Int. Geol. Cong., X. Mexico*, 1906. Guide no. xxvii: 16-17. (8 entries. 1866-1901. Regional.)
- 1706 AGUILERA, J. G. Reseña del desarrollo de la geología en México. *Soc. geol. Mex., Bol.* 1, 1905: 35-117. (16th Cent.-1904. Regional. Reviews in chronological order works on geology of Mexico.)
- 1707 BÖSE, EMILIO. Algunas faunas del cretácico superior de Coahuila y regiones limítrofes. México, 1913, 56 pp. Mexico. *Inst. geol., Bol.* 30. (90 entries. 1841-1907. Regional.)
- 1708 BÖSE, EMILIO. La fauna de moluscos del Senoniano de Cardenas, San Luis Potosí. México, 1906, 95 pp. Mexico. *Inst. geol., Bol.* 24. (Literature, 7-13. 95 entries. 1841-1904. Regional.)
- 1709 BÖSE, E. Monografía geológica y paleontológica del Cerro de Muleos cerca de ciudad Juárez, estado de Chihuahua . . . México, 1910, 193 pp. Mexico. *Inst. geol., Bol.* 25. (Literature, 5-14, 181-182. 120 entries. 1882-1907. Regional.)
- 1710 BÖSE, EMILIO. Sobre algunas faunas Terciarias de México. México, 1906, 96 pp. Mexico. *Inst. geol., Bol.* 22. (Literature, 7-9, 63-64. 56 entries. 1841-1903. Regional.)
- 1711 BURCKHARDT, CARLOS. Faunas Jurasicas de Symon (Zacatecas) y faunas Cretacicas de Zumpango del rio (Guerrero). México, 1919, 135 pp. Mexico. *Inst. geol., Bol.* 33. (Literature, 131-132. 34 entries. 1842-1910. Regional.)
- 1712 BURCKHARDT, CARLOS. Faunes jurassiques et cretaciques de San Pedro del Gallo. Mexico, 1912, 264 pp. México *Inst. geol., Bol.* 29. (Works, 243-250. 120 entries. 1812-1908. Regional.)
- 1713 EMMONS, S. F. Cananea mining district of Sonora, Mexico. *Econ. Geol.*, 5, 1910: 356. (9 entries. 1902-03. Regional.)
- 1714 FLORES, T. Le Xinantecatl ou volcan Nevado de Toluca. *Int. Geol. Cong., X. Mexico*, 1906. Guide no. ix: 15-16. (12 entries. 1866-1902. Regional.)
- 1715 ORDOÑEZ, EZEQUIEL. Le Xinantecatl ou volcan Nevado de Toluca. *Soc. cient. "Antonio Alzate."* Mem. 18, 1902: 112. (13 entries. 1849-97. Regional.)
- 1716 STEWART, P. C. A. The petroleum industry of Mexico. *Inst. Petrol. Tech., Journ.* 2, pt. 5, 1915: 31-37. (143 entries. 1846-1915. Regional.)
- 1717 *THAYER, W. N. A bibliography of Mexican geology, geography, and mining, 1902-1912. *Min. Sci.*, 70, 1914: 52-56, August; 53-56, Sept.; 53-58, Oct.
- 1718 VILLARELLO, J. D. Algunas regiones petrolíferas de México. México, 1908, 120 pp. Mexico. *Inst. geol., Bol.* 26. (Literature, 17. 5 entries. 1872-1904. Regional.)
See 209, 964, 965, 1532, 1590, 1641, 2379a, 2746a.
- MICA.**
- 1719 CIRKEL, FRITZ. Mica its occurrence, exploitation and uses. Ottawa, 1905, 148 pp. Canada. *Dept. Int., Mines Br.* (Bibl., 131-132. 21 entries. 1877-1904. General.)
- 1720 CORKILL, E. T. Notes on the occurrences, production and uses of mica. *Canad. Min. Inst., Journ.* 7, 1904: 303. (9 entries. 1863-1900. General.)
- 1721 CULIN, F. L., jr. Mica. Tucson, Arizona, 1915-16, 12 pp. *Ariz. Bur. Mines, Bull.* 16. *Min. tech. ser.* 8. (17 entries. 1899-1914. General.)
- 1722 HALL, A. L. Mica in the eastern Transvaal. Johannesburg, 1920, 95 pp. Union S. Afr. *Geol. Surv., Mem.* 13. (Bibl., 87. 18 entries. 1902-18. General.)
- 1723 HOLLAND, T. H. The mica deposits of India. *India Geol. Surv., Mem.* 34, pt. 2, 1902: 112-114. (25 entries. 1826-1900. Regional.)
- 1724 SCHMID, H. S. DE. Mica its occurrence, exploitation, and uses. 2d ed. Ottawa, 1912, 411 pp. Canada. *Dept. Mines, Mines Br.* no. 118. (Literature, 391-398. 129 entries. 1874-1910. General.)
- 1725 STERRETT, D. B. Mica. U. S. *Geol. Surv., Min. Res.* 1912-II,

*Not seen.

1913: 1089-1091. (55 entries.
1880-1912. Regional.)

MICHIGAN.

- 1726 BAYLEY, W. S. The Menominee iron-bearing district of Michigan. Washington, 1904, 513 pp. U. S. Geol. Surv., Mon. 46. (Bibl., 41-124. 80 entries. 1845-1901. Regional.)
- 1726a BAYLEY, W. S. Geological exploration and literature [of Marquette and iron-bearing district of Michigan.] U. S. Geol. Surv., Mon. 28, 1899: 5-148. (112 entries. 1821-95. Regional.)
- 1727 COOK, C. W. The brine and salt deposits of Michigan; their origin, distribution and exploitation. Lansing, 1914, 188 pp. Mich. Geol. Surv., Publ. 15. Geol. ser. 12. (Bibl., 171-172. 34 entries. 1826-1911. Regional.)
- 1728 LANE, A. C. Historical review of the geology of Michigan. Mich. Acad. Sci., Rept. 5, 1904: 194-195. (21 entries. 1823-1901. Regional.)
- 1728a LANE, A. C. The Keweenaw series of Michigan. Mich. Geol. Surv., Publ. 6, vol. 2 (Geol. ser. 4), 1911: 932-938. (90 entries. 1879-1912. Regional.)
- 1729 LEVERETT, FRANK. Review of the glacial geology of the southern peninsula of Michigan. Mich. Acad. Sci., Rept. 6, 1904: 108-110. (39 entries. 1840-1903. Regional.)
- 1729a LEVERETT, FRANK. Bibliography of Northern Peninsula water power. Mich. Geol. Surv., Publ. 7 (Geol. ser. 5), 1911: 65-66. (11 entries. 1880-1910. Regional.)
See 565a, 655, 1351, 1726a, 2108, 2180, 2379, 2774.

MILITARY GEOGRAPHY.

- 1730 JOHNSON, D. W. Some recent books on military geography. Geog. Rev., 9, 1920: 60-63. (7 entries. 1916-18. Footnotes.)

MILITARY GEOLOGY.

- 1731 BROOKS, A. H. The use of geology on the western front. U. S. Geol. Surv., Prof. Paper 128-D, 1920: 85-86. (54 entries. 1917-20. Regional.)

MILLSTONES. *See* 94, 1903.**MINE VALUATION.**

- 1732 UGLOW, W. L. A study of methods of mine valuation and assessment with special reference to the zinc mines of southwestern Wisconsin.

Madison, Wis., 1914, 73 pp. Wis. Geol. Surv., Bull. 41, Econ. ser. 18. (Bibl., 72-73. 47 entries. 1903-14. General.)

MINERAL DEPOSITS. *See* ORE DEPOSITS.**MINERAL LOCALITIES.**

- 1733 ANDERSON, C. Bibliography of Australian mineralogy. Sydney, 1916, 164 pp. New South Wales Geol. Surv., Min. Res. 22. (911 entries. 1859(?)-1915. Regional.)
- 1734 GÖRGEY, R. Schöne und bedeutende Mineralfunde. Fortsch. Min. Krist. Petrogr., 2, 1912: 145-148. (83 entries. 1905-11. General.)
See 678, 1085, 1176, 1341, 1534, 1679, 1910, 1938a, 2123, 2287, 2398, 2399, 2597a.

MINERAL PAINTS.

- 1735 HILL, J. M. Mineral paints. U. S. Geol. Surv., Min. Res. 1913-II, 1914: 67-70. (117 entries. 1901-14. General.)
- 1736 HILL, J. M. Mineral paints [Bibliographic abstracts]. U. S. Geol. Surv., Min. Res. 1914-II, 1916: 117-122. (34 entries. 1914-15. General.)
- 1737 PHALEN, W. C. Mineral paints. U. S. Geol. Surv., Min. Res., 1911-II, 1912: 898-993. (148 entries. 1903-12. General.)
See 2125.

MINERAL RESOURCES.

- 1738 GREAT BRITAIN. IMPERIAL MINERAL RESOURCES BUREAU. The mineral industry of the British Empire and foreign countries. War period. London, 1920. Arsenic (1913-19), p. 19, 27 entries. Bismuth (1913-19), p. 13-14, 28 entries. Borates (1913-19), p. 23-24, 28 entries. Chrome ore and chromium (1913-19), p. 26-29, 63 entries. Fuller's earth (1913-19), p. 13, 16 entries. Feldspar (1913-19), p. 15-16, 32 entries. Magnesite (1913-19), p. 39-41, 51 entries. Monazite (1913-19), p. 12-14, 32 entries. Nitrates (1913-19), p. 25-28, 77 entries. (354 entries. 1913-19. General.)
- 1739 GREAT BRITAIN. PATENT OFFICE. Subject list of works on mineral industries in the library of the Patent office. Parts 1-3. London, 1912. (General.)
- 1740 MCCASKEY, H. D., and BURCHARD, E. F. Our mineral supplies. Washington, 1919, 278 pp. U. S. Geol. Surv., Bull. 666. (Bibl., 221-278. ca 3000 entries. 1885-

*Not seen.

1918. Regional. Compiled under the direction of G. M. Wood.)
- 1740a WAAGEN, LUKAS. Bergbau und Bergwirtschaft. Wien, 1919, 364 pp. Wirtschaftsgeographische Karten . . . zur Wirtschaftskunde . . . Heft 10. (Bibliographies through text.)
- See 114, 127, 259, 304, 578, 579, 580, 584, 591, 592, 596, 602, 686, 688, 769, 948, 949, 1021a, 1273, 1401a, 1407, 1410, 1413, 1416, 1764, 1769, 1840, 1844, 1867, 1868, 1874a, 1903, 1964, 2137, 2138, 2143a, 2281, 2284, 2285, 2286, 2476, 2485, 2638a, 2644, 2647, 2647a, 2649, 2658, 2733, 2734, 2793, 2839, 2857a, 2871.

MINERAL WATERS.

- 1741 BAILEY, E. H. S. Special report on mineral waters. Topeka, 1902, 343 pp. Kansas Geol. Surv., Vol. 7. (Bibl., 331-332. 45 entries. n. d. General.)
- 1741a *BAUR, KARL. Ueber die Genesis der Mineralquellen in Bad Steben. Ein Beitrag zur Quellenkunde. Bad Wildungen, 1912, 61 pp. (Benützte Literatur: one p. after p. 61.)
- 1741b *CHRISTY, MILLER, and THRESH, MAY. A history of the mineral waters and medicinal springs of the county of Essex. Stratford, 1910, 73 pp. Essex field club special memoirs, vol. 4. (Bibl., of Essex mineral springs, 6-10.)
- 1742 ELLIS, A. J. Mineral waters. U. S. Geol. Surv., Min. Res. 1916-II, 1917: 509-510. (26 entries. 1888-1913. General.)
- 1743 ELWORTHY, R. T. The chemical character of some Canadian mineral springs. Ottawa, 1918, 173 pp. Canada Dept. Mines. Mines Br., Bull. 20. (Bibl., 168. 14 entries. 1860-1913. General.)
- 1744 MCCALLIE, S. W. A preliminary report on the underground waters of Georgia. Atlanta, Ga., 1908, 370 pp. Georgia Geol. Surv., Bull. 15. (Bibl., 282. 6 entries. 1849-99. Regional.)
- 1745 PEALE, A. C. Bibliography of mineral waters. U. S. Geol. Surv., Min. Res. 1905, 1906: 1308-1312. (104 entries. 1807-1905. Regional.)
- 1746 SATTERLY, JOHN, and ELWORTHY, R. T. The radioactivity of some Canadian mineral springs. Ottawa, 1917, 60 pp. Canada Dept.

Mines. Mines Br., Bull. 16. (Bibl., 53-54. 29 entries. 1909-16. General.)

See 682, 779, 1171a, 1279, 1903.

MINERALIZERS.

- 1747 NIGGLI, P. Die gasförmigen Mineralisatoren im Magma. Geol. Rundsch., 3, 1912: 472-473. (55 entries. 1847-1911. General.)

MINERALOGY.

- 1748 [FERSMANN, A. Études sur les silicates magnésiens hydratés.] Mus. géol. Pierre le Grand, Trav. 7, 1913: 205-250. (83 entries. 1817-1914. General.)
- 1748a [FERSMANN, A. Études sur les zéolithes de la Russie. III.] Mus. géol. Pierre le Grand, Trav. 7, 1913: 181-204. (65 entries. 1827-1914. General.)
- 1748b GANNETT, R. W., and ROBERTSON, C. T. Selected bibliography on mineralogy and the identification of minerals. Cal. State Min. Bur. Bull. 87, 1920: 112-115. (42 entries. 1875-1918. General.)
- 1749 KRAUS, E. H. Descriptive mineralogy with especial reference to the occurrences and uses of minerals. Ann Arbor, Mich., 1911, 334 pp. (Bibl., vii-viii. 49 entries. 1893-99. General.)
- 1750 LACROIX, ALFRED. La minéralogie, La science Française, v. 1, Paris. 1915: 185-200. (224 entries. 1722-1915. Regional.)
- 1751 MERRILL, G. P. The non-metallic minerals. Their occurrence and uses. N. Y., 1904, 414 pp. (335 entries. 1821-1903. General. Bibliographies through text.)
- 1752 MOSES, A. J., and PARSONS, C. L. Elements of mineralogy, crystallography and blowpipe analysis from a practical standpoint . . . 5th ed. N. Y., 1916, 631 pp. (Bibl., xi-xiii. 74 entries. 1864-1916. General.)
- 1753 PENFIELD, S. L., and PIRSSON, L. V., ed. Contributions to mineralogy and petrography from the laboratories of the Sheffield scientific school of Yale University. N. Y., 1901, 482 pp. (Bibl., 9-21, 384-386. 275 entries. 1849-1901. General.)
- 1754 *REVUE BIBLIOGRAPHIQUE des sciences naturelles pures et appliquées (biologie générale; anatomie et physiologie; botanique; agriculture et sciences agronomiques; minéralogie et industries minières). 1 re année. Paris, 1902.

*Not seen.

- 1755 SCHILLING, JOHANNES. Das Vorkommen der "seltenen Erden" im Mineralreiche. München, 1904, 115 pp. (Bibliographies throughout text under mineral names.)
- 1756 SCHWANTKE, ARTHUR. Neue Mineralien. Literatur zu den neuen Mineralien in Band I der Fortschritte. Fortschr. Min. Krist. Petrogr. 2, 1912: 129-135. (145 entries. 1898-1911. General.)
- 1757 SCOTT, ALEXANDER. Recent advances in science: Mineralogy and crystallography. Sci. Prog., 14, 1919-1920: 385-389. (30 entries. 1916-1919. General. Beginning with Vol. 12, 1917, each vol. contains the above section.)
- 1758 *SLAVIK, F. Mineralogie im Jahre 1905. Franz Josefs-Akad., Abh. 16, 1907: 9-50.
See 87, 93, 364, 381, 423, 435, 436, 437, 540, 580, 583, 1341, 1574, 1588, 1733, 2149, 2319, 2332, 2406, 2641, 2673, 2674, 2735, 2819.

MINERALOGY. See also MINERAL LOCALITIES.

MINERALOGY, CHEMICAL.

- 1759 CORNU, F. Versuch über die saure und alkalische Reaktion von Mineralien, insbesondere der Silikate. T. M. P. M., n. f. 24, 1905: 417. (11 entries. 1867-1904. General.)
- 1760 HIMMELBAUER, ALFRED. Die Bedeutung der Kolloidchemie für die Mineralogie. (Spezieller Teil.) Fortschr. Min. Krist. Petrogr., 3, 1913: 32-37. (127 entries. 1890-1912. General.)
- 1760a *JAEGER, F. M. Eine Anleitung zur ausführung exakter physikochemischer Messungen bei höheren Temperaturen. Mit besonderer Berücksichtigung des Studiums der Mineralsynthese und der silikatchemie. Groningen, 1913, 152 pp. (Bibliographies at end of chapters.)
- 1761 REITER, H. H. Experimentelle Studien an Silikatschmelzen. N. J. f. Min., B. B. 22, 1906: 260-264. (94 entries. 1879-1906. General.)

MINING ENGINEERING LITERATURE

- 1762 CRANE, W. R. Index of mining engineering literature comprising an index of mining, metallurgical, civil, mechanical, electrical and chemical engineering subjects as related to mining engineering.

N. Y., 1909, 812 pp. (ca 24,090 entries. n. d. General.)

- 1762a FAY, A. H. A glossary of the mining and mineral industry. Washington, 1920, 754 pp. (U. S. Bur. Mines, Bull. 95. (References through text. 1747-1918. General.)

MINNESOTA.

- 1763 BACHELLERY, A. Les mines de fer du Minnesota. Ann. mines, 9th ser. 18, 1900: 212. (22 entries. 1875-98. Regional.)
- 1764 CLEMENTS, J. M. The Vermillion iron-bearing district of Minnesota. Washington, 1903, 463 pp. U. S. Geol. Surv., Mon. 45. (Literature, 64-128. 69 entries. 1825-1901. Regional.)
- 1765 ELFTMAN, A. H. The geology of the Keweenaw area in north-eastern Minnesota. II. Am. Geol., 21, 1898: 186-188. (49 entries. 1852-96. Regional.)
- 1766 GREGORY, WINIFRED. Bibliography of Minnesota mining and geology. Minneapolis, 1915, 157 pp. Minn. Sch. Mines Exp. Sta., Bull. 4. (991 entries. 1778-1915. Regional.)
- 1766a *GREGORY, WINIFRED. Supplement to the bibliography of Minnesota mining and geology. Minn. Univ. Sch. Mines Exp. Sta., Bull. 8, 1920, 43 pp.
- 1767 HALL, C. W. The gneisses, gabbroschists, and associated rocks of southwestern Minnesota. Washington, 1899, 160 pp. U. S. Geol. Surv., Bull. 157. (Summary, 12-19. 23 entries. 1779-1888. Regional.)
- 1768 HARDER, E. C., and JOHNSTON, A. W. Preliminary report on the geology of east central Minnesota including the Cuyuna iron-ore district. Minneapolis, 1918, 178 pp. Minn. Geol. Surv., Bull. 15. (Bibl., 167-174. 131 entries. 1877-1916. Regional.)
- 1769 LEITH, C. K. The Mesabi iron-bearing district of Minnesota. Washington, 1903, 316 pp. U. S. Geol. Surv., Mon. 43. (Summary, 31-62. 67 entries. 1810-1902. Regional.)
- 1769a *NIEMI, SIGNA. Mesabi iron range of Minnesota, a bibliography. Madison, 1920, 18 pp.
See 697, 2118, 2770, 2774.
- MIocene.**
- 1770 KIRCHNER, W. C. G. Contribution to the fossil flora of Florissant, Colorado. St. Louis Acad. Sci.,

*Not seen.

- Trans. 8, 1898: 187-188. (18 entries. 1847-98. General.)
- 1771 SCHAFFER, F. X. Das Miocän von Eggenburg. Wien, 1910, 126 pp. Austria. Geol. Reichsanst., Abh. 22, hft. 1. (Literature, 8-11. 107 entries. 1780-1909. General.)
See 771, 789, 871, 884, 1138, 1162, 1482, 1608, 1612, 1666, 2060a, 2252, 2509b, 2814, 2902.
- MISSISSIPPI.**
- 1772 BROWN, C. S. The lignite of Mississippi. Jackson, Miss., 1907, 71 pp. Miss. Geol. Surv., Bull. 3. (Bibl., 8. 16 entries. 1854-1906. Regional.)
See 655, 859, 1238, 2222.
- MISSISSIPPI RIVER.**
- 1773 BROWN, R. M. The Mississippi River from Cape Girardeau to the head of the passes. Am. Geog. Soc., Bull. 35, 1903: 16. (18 entries. 1875-1900. Regional.)
- MISSISSIPPIAN.** See 680.
- MISSOURI.**
- 1774 HINDS, HENRY, and GREENE, F. C. The stratigraphy of the Pennsylvanian series in Missouri . . . Jefferson City, Mo., 1915, 407 pp. Mo. Bur. Geol., Vol. 13, 2d ser. (Bibl., 377-397. 390 entries. 1823-1913. Regional.)
- 1775 KEYES, C. R. Bibliography of Missouri geology. Mo. Geol. Surv., Vol. 10, 1896: 219-523. (ca 4150 entries. 1814-96. Regional.)
See 406, 706, 730, 955, 975, 1534, 2727, 2920.
- MOLDING SAND.**
- 1776 ECKEL, E. C. Molding sand: its uses, properties, and occurrence. N. Y. State Mus., Ann. Rept. 55, 1903: r96. (6 entries. 1869-1901. General.)
- MOLLUSKS.**
- 1777 ANTEVS, ERNST. Post-glacial marine shell-beds in Bohuslän. Geol. Fören. Stockh. Förh., 39, 1917: 423-425. (36 entries. 1846-1914. Regional.)
- 1778 ARNOLD, RALPH. The Tertiary and Quaternary Pectens of California. Washington, 1906, 264 pp. U. S. Geol. Surv., Prof. Paper 47. (Bibl., 142-146. 71 entries. 1829-1905. Regional.)
- 1779 BAKER, F. C. The Lymnaeidae of North and Middle America recent and fossil. Chicago, 1911, 539 pp. Chicago Acad. Sci., Sp. Publ., 3. (Bibl., 468-510. ca 775 entries. 1758-1910. General.)
- 1780 BORCHERT, A. Die Molluskenfauna und das Alter der Paraná-Stufe. (Beiträge zur Geologie und Palaeontologie von Südamerika . . . IX). N. J. f. Min., B. B. 14, 1901: 243-244. (42 entries. 1836-99. Regional.)
- 1781 BRUSINA, SPIRIDION. Gragja za neogensku malakolosku faunu Dalmacije, Hrvatske i Slavonije uz neke vrste iz Bisne, Hercegovine i Srbije . . . Zagreb-Agram, 1897, 43 pp. (Bibl., xx-xxi. 23 entries. 1870-96. Regional.)
- 1782 DALL, W. H. Material toward a bibliography of publications on the post-Eocene marine mollusks of the northeast coast of America, 1865-1908. U. S. Geol. Surv., Prof. Paper 59, 1909: 192-216. 615 entries. 1865-1908. General.)
- 1783 DOUVILLÉ, ROBERT. Études sur les Cardiocératidés de Dives, Villers-sur-Mer et quelques autres gisements. Soc. géol. France, Mém. Pal. 45, 1912: 5-8. (83 entries. 1815-1911. General.)
- 1784 HAAS, OTTO. Die Fauna des mittleren Lias von Ballino in Südtirol. II. Teil. Beitr. Paläont. Oesterr.-Ung., 26, 1913: 158-161. (106 entries. 1846-1912. Regional.)
- 1785 HÄGG, RICHARD. Über relikte und fossile nördliche Binnenmollusken in Schweden. Upsala Univ., Bull. Geol. Inst. 9, 1908-1909: 33. (18 entries. 1830-1906. Regional.)
- 1786 KENNARD, A. S., and WOODWARD, B. B. The post-Pliocene non-marine mollusca of the south of England. Geol. Assoc., Proc. 17, 1901-1902: 257-260. (74 entries. 1824-1900. Regional.)
- 1787 KITTL, ERNST. Materialien zu einer Monographie der Halobiidae und Monotidae der Trias. Res. wissen. Erf. Balatonsees. 1, Teil 1 Pal. Anh. 2, IV, 1912: 221-225. (156 entries. 1828-1910. General.)
- 1788 ODHNER, NILS. Die Entwicklung der Molluskenfauna in dem Kalktuffe bei Skulptorp in Wästergötland. Geol. Fören. Stockh. Förk. 323, 1910: 1131. (16 entries. 1872-1910. Regional.)
- 1789 PETHÖ, JULIUS. Die Kriede- (Hypersenen-) Fauna des Peterward-einer (Pétervärader) Gebirges (Fruska Gora). Palaeontographica, 52, 1906: 61-72. (180 entries. 1785-1898. Regional.)

- 1790 REHBINDER, B. Fauna und alter der cretaceischen sandsteine in der umgebung des Salzsees Baskuntshak. St. Petersburg, 1902, 162 pp. Russia. Com. géol., Mém. 17, no. 1. (Literature, 79-82. 101 entries. 1836-1900. Regional. Text in Russian and German.)
- 1791 REPELIN, J. Monographie du genre *Lychnus*. Soc. géol. France, Mém. Pal. 53, 1920: 5. (16 entries. 1832-1916. General.)
- 1792 SHATTUCK, G. B. The mollusca of the Buda limestone. Washington, 1903, 36 pp. U. S. Geol. Surv., Bull. 205. (Bibl., 11-12. 15 entries. 1889-1901. Regional.)
- 1793 STEUSLOFF, ULRICH. Beiträge zur Fauna und Flora des Quartärs in Mecklenburg. Ver. Natur. Mecklenburg, Arch. 61, 1907: 87-88. (19 entries. 1881-1907. Regional.)
- 1794 TESCH, P. Jungtertiäre und quaternäre Mollusken von Timor. I. teil. Stuttgart, 1915, 70 pp. In Wanner, Joh. Paläontologie von Timor. V. Lief. (Literature, 1-15. 23 entries. 1843-1913. Regional.)
- 1795 TOUCAS, AR. Études sur la classification et l'évolution des Radiolites. Soc. géol. France, Mém. Pal. 36, 1907: 6-8. (58 entries. 1780-1904. General.)
- 1796 WOLLEMAN, A. Die Bivalven und Gastropoden des deutschen und holländischen Neocom. Berlin, 1900, 180 pp. Prussia. Geol. Landesanst., Abh., n. f. 31. (Literature, 3-7. 84 entries. 1812-97. General.)

See 265, 272a, 493.

MOLUCCAS.

- 1797 GOGARTEN, E. Die Vulkane der nördlichen Molukken. Zeit. f. Vulkan., 4, 1918: 286-305. (266 entries. 1605-1918. Regional.)
- 1798 SOERGEL, W. Lias und Dogger von Jeffbie und Fialpopo (Misól-archipel). (Geologische Mittheilungen aus dem Indo-Australischen Archipel. IX). N. J. f. Min., B. B. 36, 1913: 646-648. (64 entries. 1830-1912. Regional.)

See AMBON ISLAND.

MOLYBDENUM.

- 1799 HORTON, F. W. Molybdenum: its ores and their concentration. Washington, 1916, 132 pp. U. S. Bur. Mines, Bull. 111. (Bibl., 121-125. 87 entries. 1894-1916. Select.)

- 1800 JOSEPH, P. E. Molybdenum. Tucson, Arizona, 1915-16, 9 pp. Ariz. Bur. Mines, Bull. 5. Min. tech. ser. 3. (15 entries. 1899-1913. General.)
- 1801 SIGG, HENRI, and SWIDERSKY, B. Les gisements de molybdénite de la vallée de Baltschieder. Soc. vaud. sci. nat., Bull. 52, 1919: 446. (7 entries. 1866-1919. Regional.)
- 1802 WALKER, T. L. Report on the molybdenum ores of Canada. Ottawa, 1911, 64 pp. Canada Dept. Mines, Mines Br. no. 93. (Bibl., 58. 8 entries. 1899-1908. General.)
- 1803 WELLS, J. W. Molybdenite: its occurrence, concentration, and uses. Canad. Min. Inst., Journ. 6, 1903: 64-65. (9 entries. n. d. General.)
- 1804 WORCESTER, P. G. Molybdenum deposits of Colorado with general notes on the molybdenum industry. Denver, Col., 1919, 131 pp. Col. Geol. Surv., Bull. 14. (Bibl., 120-123. 65 entries. 1896-1918. General.)

See 2293.

MONAZITE.

- 1805 BOWMAN, H. L. Beiträge zur Kenntniss des Monazit. Zeit. f. Kryst., 33, 1900: 125-126. (56 entries. 1823-99. General.)
- 1806 KITHIL, K. L. Monazite, thorium- and mesothorium. Washington. 1915, 32 pp. U. S. Bur. Mines, Tech. Paper 110. (Bibl., 30. 23 entries. 1895-1915. Select.)
- 1807 STERRETT, D. B. Monazite and Zircon. U. S. Geol. Surv., Min. Res. 1911-II, 1912: 1196. (22 entries. 1888-1910. General.)

See 1738.

MONGOLIA.

- 1808 GRANÖ, J. G. Beiträge zur Kenntniss der Eiszeit in der nordwestlichen Mongolei . . . Helsingfors, 1910, 230 pp. Fennia, 28, no. 5. (Literature, 223-230. 92 entries. 1837-1910. Regional.)

MONTANA.

- 1809 CALVERT, W. R., comp. Bibliography of the more important papers relating to the water resources of the Great Falls region, Montana. U. S. Geol. Surv., Water-supply Paper 221, 1909: 9-10. (13 entries. 1893-1906. Regional.)
- 1810 COLLIER, A. J. Geology of north-eastern Montana. U. S. Geol. Surv., Prof. Paper 120-B, 1918:

18. (18 entries. 1875-1917. Regional.)
- 1811 EMMONS, W. H., and CALKINS, F. C. Geology and ore deposits of the Philipsburg quadrangle, Montana. Washington, 1913, 271 pp. U. S. Geol. Surv., Prof. Paper 78. (Bibl., 24-26. 49 entries. 1867-1911. Regional.)
- 1812 FISHER, C. A. Geology of the Great Falls coal field, Montana. Washington, 1909, 85 pp. U. S. Geol. Surv., Bull. 356. (Bibl., 9-14. 61 entries. 1860-98. Regional.)
- 1813 KNOPF, ADOLPH. Ore deposits of the Helena mining region, Montana. Washington, 1913, 143 pp. U. S. Geol. Surv., Bull. 527. (Literature, 18-19. 18 entries. 1888-1912. Regional.)
- 1814 PIRSSON, L. V. Petrography and geology of the igneous rocks of the Highwood mountains, Montana. Washington, 1905, 208 pp. U. S. Geol. Surv., Bull. 15. (Bibl., 15. 12 entries. 1861-1901. Regional.)
- 1815 ROWE, J. P. Montana coal and lignite deposits. Montana, Univ. Bull. 37. Geol. ser. 2, 1906: 80. (23 entries. 1880-1905. Regional.)
- 1816 U. S. GEOLOGICAL SURVEY. Publications of the . . . on the metaliferous resources of Montana. U. S. Geol. Surv., Min. Res. 1914-I, 1916: 796-797. (27 entries. 1885-1914. Regional.)
- 1817 WINCHELL, A. N. Mining districts of the Dillon quadrangle, Montana and adjacent areas. Washington, 1914, 191 pp. U. S. Geol. Surv., Bull. 574. (Literature, 17-18. 37 entries. 1868-1912. Regional.)
See 744, 748, 755, 1307, 1599, 2727, 2770, 2920.
- MONTICULIPOROIDS.**
- 1818 CUMINGS, E. R., and GALLOWAY, J. J. Studies of the morphology and histology of the Trepotomara or Monticuliporoids. Geol. Soc. Am., Bull. 26, 1915: 366-368. (36 entries. 1871-1913. General.)
- MOORS AND HEATHS.**
- 1819 POST, LENNART VON. Einige süd-schwedischen Quellmoore. Upsala, Univ. Bull. Geol. Inst. 15, 1916: 276-277. (28 entries. 1854-1916. Regional.)
See 2111, 2118a, 2119, 2544a, 2566.
- MORAVIA.** See 832.
- MOREA.** See 398.
- MOUNDS.**
- 1820 CAMPBELL, M. R. Natural mounds. Journ. Geol., 14, 1906: 716-717. (23 entries. 1865-1906. General.)
- MOUNTAIN STRUCTURE.** See 658, 1285, 2408, 2413.
See also TECTONICS.
- MOUNTAINS.**
- 1821 DAVIS, W. M. The mountain ranges of the Great Basin. Harvard Univ. Mus. Comp. Zool., Bull. 42. Geol. ser. 6, no. 3, 1903: 175. (10 entries. 1875-1903. Regional.)
- 1822 WILCKENS, OTTO. Allgemeine Gebirgskunde. Jena, 1919, 154 pp. (Literature, 144-145. 42 entries. 1851-1916. General.)
See 273, 1920, 2092, 2139.
- MOZAMBIQUE.**
- 1823 WRAY, D. A. Observations sur la géologie du district de Moçambique. Portugal. Serv. geol., Comm. 11, 1915-1916: 71. (8 entries. 1873-1914. Regional.)
See 102.
- MUSTELIDAE.** See 1621.
- MYRIOPODA.**
- 1824 BALDWIN, WALTER. Fossil Myriopods from the middle coal-measures of Sparth Bottoms, Rochdale, Lancashire. Geol. Mag., n. s. (V) 8, 1911: 80. (16 entries. 1893-1910. Regional.)
- NATAL.**
- 1825 ANDERSON, WILLIAM. Bibliography of Natal and Zululand geology. Natal and Zululand. Geol. Surv., Rept.
1st, 1901: 29-36, 101 entries, 1847-99.
2d, 1904: 29-35, 105 entries, 1836-1903.
3d, 1907: 37-134, entries, 1855-1906.
(340 entries. 1836-1906. Regional.)
- 1826 DU TOIT, A. L. The geology of Pondoland and portions of Alfred and lower Umzimlulu counties, Natal. An explanation of Cape Sheet 28 (Pondoland). Pretoria, 1920, [45] pp. Union S. Afr. Geol. Surv. (13 entries. 1871-1920. Regional.)
- NAUTILOIDEA.**
- 1827 LOESCH, K. C. von. Die Nautilen des weissen Jura. Palaeontographia. 61, 1914: 64-71. (203 entries. 1818-1912. General.)
- 1828 PIA, JULIUS v. Untersuchungen über die liassischen Nautiloidea.

- Beitr. Paläont. Oesterr.-Ung., 27, 1914: 36-38. (64 entries. 1842-1908. General.)
- 1829 WHITEAVES, J. F. Notes on some Canadian specimens of "Lituites undatus." Ottawa Nat., 17, 1903: 117-119. (8 entries. 1842-94. Regional.)
- NEBRASKA.**
- 1830 BARBOUR, E. H., and FISHER, C. A. The geological bibliography of Nebraska. Nebraska, Bd. Agri., Ann. Rept. 1901, 1902: 248-266. (302 entries. 1804-1902. Regional.)
See 852, 1636, 2771.
- NEOCENE.** See 570, 2251.
- NEOGENE.** See 324, 462, 1379, 1497a.
- NEPHELINE ROCKS.** See 2145.
- NEPHELINE SYENITE.** See 2690.
- NEPHRITE.**
- 1831 FINLAYSON, A. M. The nephrite and magnesian rocks of the South Island of New Zealand. Geol. Soc. London, Q. J. 65, 1909: 379. (17 entries. 1777-1906. Regional.)
- 1832 TEPFNER, WILFRIED. Die Nephritfrage mit besonderer Berücksichtigung Steiermark. Nat. Ver. Steiermark, Mitth. 49 (1912) 1913: 100-102. (34 entries. 1761-1912. General.)
- 1833 WELTER, O. A. Bericht über neuere Nephritarbeiten. Geol. Rundsch., 2, 1911: 75-78. (73 entries. 1863-1910. General.)
- NETHERLANDS.**
- 1834 CALKER, F. J. P. VAN. Die kristallinischen Gesteine der Moränen-Ablagerungen in der Stradt und Umgegend von Groningen. Groningen. Min.-geol. Inst., Mitth. 2, hft. 3, 1912: 377-[390]. (222 entries. 1875-1910. General.)
- 1834a EINDVERSLAG over de ondersoekingen en uitkomsten van den dienst der Rijksopsporing van delfstoffen in Nederland 1903-1916. Amsterdam, 1918. 664 pp. (Literatuurlijst, 650-658. 99 entries. 1905-16. Regional.)
- 1835 JONKER, H. G. Liste von Schriften, welche auf die Geologie von Niederland Bezug haben. (1734-1906). Akad. Wetenschap., Amsterdam. Versl. (2e sect.) 13, no. 2, 1907: i-vii, 1-154. (1413 entries. 1734-1906. Regional.)
- 1835a *LAUTERBACH, WILHELM. Das Diluvium zwischen Limburg und Koblenz. Giessen, 1914, 1 p. 1, 13
54. Sonderabdruck aus dem Bericht der oberhessischen Gesellschaft für Natur- und Heilkunde, n. f. naturw. Abt. 6 (1914). (Bibl., 48-52.)
- 1836 MOLENGRAAFF, G. A. F., and WATERSCHOOT VAN DER GRACHT, W. A. J. M. VAN. Niederlande. Heidelberg, 1913. 98 pp. Handb. reg. Geol., 12 hft. (Literature, 95-97. 70 entries. 1868-1912. Regional.)
- 1837 STEENHUIS, J. F. Beschouwingen over en in verband met de daling van den bodem van Nederland. Amsterdam, 1917, 115 pp. Akad. Wetenschap. Amsterdam, (Tweede sect.) 10, no. 2. (Literature, 82-112. 329 entries. 1570-1917. Regional.)
- 1838 TESCH, PIETER. Der niederländische Boden und die Ablagerungen des Rheines und der Maas aus der jüngeren tertiär- und der älteren Diluvialzeit. [Amsterdam], 1908, 74 pp. Mitth. staat. Bohr. Niederl., 1. (Literature, 69-74. 74 entries. 1884-1908. Regional.)
See 456, 630, 1796, 2060a, 2188, 2189, 2527.
- NEU POMMERN.** See NEW BRITAIN.
- NEVADA.**
- 1839 EMMONS, W. H. A reconnaissance of some mining camps in Elko, Lander, and Eureka counties, Nevada. Washington, 1910, 130 pp. U. S. Geol. Surv., Bull. 408. (Bibl., 11-12. 12 entries. 1875-1904. Regional.)
- 1840 HILL, J. M. Notes on some mining districts in eastern Nevada. Washington, 1916, 214 pp. U. S. Geol. Surv., Bull. 648. (Previous descriptions, 19-21. 25 entries. 1888-1915. Regional.)
- 1841 KNOPF, ADOLPH. Geology and ore deposits of the Yerington district, Nevada. Washington, 1918, 68 pp. U. S. Geol. Surv., Prof. Paper 114. (Bibl., 9-10. 8 entries. 1903-12. Regional.)
- 1842 LINDGREN, WALDEMAR. Geology and mineral deposits of the National Mining district, Nevada. Washington, 1915, 58 pp. U. S. Geol. Surv., Bull. 601. (Literature, 17-18. 10 entries. 1870-1912. Regional.)
- 1843 RANSOME, F. L. Geology and ore deposits of Goldfield, Nevada. Washington, 1909, 258 pp. U. S. Geol. Surv., Prof. Paper 66.

*Not seen.

- (Literature, 24-26. 30 entries)
1878-1908. Regional.)
- 1844 RANSOME, F. L. Notes on some mining districts in Humboldt county, Nevada. Washington, 1909, 75 pp. U. S. Geol. Surv., Bull. 414. (Literature, 13-14. 15 entries. 1864-1908. Regional.)
- 1845 RANSOME, F. L., EMMONS, W. H., and GARREY, G. H. Geology and ore deposits of the Bullfrog district, Nevada. Washington, 1910, 130 pp. U. S. Geol. Surv., Bull. 407. (Literature, 11-12. 7 entries. 1875-1908. Regional.)
See 575, 2306, 2379, 2727, 2771, 2920.

NEW BRITAIN or NEU POMMERN.

- 1846 OFFERMANN, JOHANNA. Beiträge zur Petrographie der Insel Neupommern. Berlin, 1916, 48 pp. Beitr. geol. Erfors. Deutsch. Schutz., 14. (Literature, [3]. 9 entries. 1904-15. Regional.)

NEW BRUNSWICK.

- 1847 BAILEY, L. W. The mineral resources of the province of New Brunswick. Ottawa, 1898, 128 pp. Canada Geol. Surv., Ann. Rept. (n. s.) 10, A. H. I. J. M. S. 1897. (Bibl., 16 M. 8 entries. 1836-75. Regional.)
- 1848 BAILEY, L. W. Report upon the Carboniferous system of New Brunswick with special reference to workable coal. Ottawa, 1902, 38 pp. Canada Geol. Surv., Ann. Rept. (n. s.) 13, M. 1900. (Publ., 37-38. 30 entries. 1839-1901. Regional.)
- 1849 KAIN, S. W. Bibliography of scientific publications relating to the province of New Brunswick other than those contained in the bulletins of the society, 1890-1898. Nat. Hist. Soc. New Brunswick, Bull. 13, 1896: 96-100; 14, 1896: 56-57; 15, 1897: 83; 16, 1898, 75-76. (89 entries. 1890-98. Regional.)
- 1850 STOPES, M. C. The "Fern Ledges" Carboniferous flora of St. John, New Brunswick. Ottawa, 1914, 142 + viii pp. Canada Geol. Surv., Mem. 41. Geol. ser. 38. (Bibl., 128-142. 145 entries. 1804-1912. Regional.)
- 1851 YOUNG, G. A. Bathurst district, New Brunswick. Ottawa, 1911, 96 pp. Canada Geol. Surv., Mem. 18-E. (Bibl., 14-15. 29 entries. 1842-1909. Regional.)
See 1114, 2222.

NEW CALEDONIA. See 1590.**NEW ENGLAND.**

- 1852 DAVIS, W. M. Physiography [portions of New England]. Am. Assoc. Adv. Sci., 50, 1898, Guide to localities: 1-7. (10 entries. n. d. Regional.)
- 1853 FAIRCHILD, H. L. Post-glacial uplift of southern New England. Geol. Soc. Am., Bull. 30, 1919: 632-636. (82 entries. 1824-1917. Regional.)
- 1854 SHALER, N. S., WOODWORTH, J. B., and FOERSTE, A. F. Geology of the Narragansett basin. Washington, 1899, 402 pp. U. S. Geol. Surv., Mon. 33. (Bibl., 212-214. 65 entries. 1817-95. Regional. A bibliography of the Cambrian and Carboniferous rocks of the Narragansett basin.)
See 1884, 2178, 2222, 2275, 2660.

NEW GUINEA.

- 1855 JAWORSKI, E. Die fauna der obertriadischen Nucula-Mergel von Misol. Stuttgart, 1915, 174 pp. In Wanner, Joh. Paläontologie von Timor. II. Lieferung. (Literature, 76-81. 98 entries. 1826-1914. General.)
- 1856 RICHARZ, P. S. Der geologische Bau von Kaiser Wilhelms-Land nach dem heutigen Stand unseres Wissens. (Geologische Mitteilungen aus dem Indo-Australischen Archipel. VII) N. J. f. Min., B. B. 29, 1910: 412-414. (51 entries. 1705-1910. Regional.)
See 824.

NEW HAMPSHIRE. See 1314, 1592, 2888.**NEW HEBRIDES ISLANDS.**

- 1857 MAWSON, D. The geology of the New Hebrides. Linnean Soc. N. S. W., Proc. 30, 1905: 479-481. (33 entries. 1777-1900. Regional.)

NEW JERSEY.

- 1858 BLACK, G. F. List of works relating to the geology, mineralogy, and paleontology of New Jersey. New York Public Library, 1916, 36 pp. (ca 600 entries. 1814-1916. Regional.)
- 1859 DARTON, N. H., and others. Description of the Passaic quadrangle, New Jersey-New York. Washington, 1908, 27 pp. U. S. Geol. Surv., Geol. Atlas, 157. (Bibl., 27. 25 entries. 1881-1906. Regional.)
- 1860 HAWKINS, A. C. Lockatong formation of the Triassic of New Jersey and Pennsylvania. N. Y.

- Acad. Sci., Ann. 23, 1914: 175-176. (25 entries. 1880-1913. Regional.)
- 1861 LEWIS, J. V., and KÜMMEL, H. B. The geology of New Jersey. A summary to accompany the geologic map (1910-1912) on the scale of 1:250,000 or approximately 4 miles to 1 inch. Union Hill, N. J., 1915, 146 pp. N. J. 1915, 146 pp. N. J. Geol. Surv., Bull. 14. (Bibl., 69-70, 78-79, 124, 125, 127, 131, 134-136, 138, 139, 140. 73 entries. 1868-1914. Regional.)
See 655, 703, 859, 1137, 2116, 2222, 2920.
- NEW MADRID EARTHQUAKE.** See 955, 975.
- NEW MEXICO.**
- 1862 BAUER, C. M. Stratigraphy of a part of the Chaco River valley. (Contributions to the geology and palaeontology of San Juan county, New Mexico. I.) U. S. Geol. Surv., Prof. Paper 98-P, 1916: 278. (21 entries. 1875-1915. Regional.)
- 1862a BRYAN, KIRK. Geology of the vicinity of Albuquerque. Bulletin university of New Mexico. Geol. ser. 3, no. 1, 1909: 4-5. (15 entries. 1809-1904. Regional.)
- 1863 DARTON, N. H. A reconnaissance of parts of northwestern New Mexico and northern Arizona. Washington, 1910, 88 pp. U. S. Geol. Surv., Bull. 435. (Bibl., 81-84. 67 entries. 1861-1910. Select.)
- 1864 GARDNER, J. H. The Puerco and Torreon formations of the Nacimiento group. Journ. Geol., 18, 1910: 736-741. (82 entries. 1859-1909. Regional.)
- 1865 LEE, W. T. Stratigraphy of the coal fields of northern central New Mexico. Geol. Soc. Am., Bull. 23, 1912: 660-686. (122 entries. 1848-1912. Regional.)
- 1866 LINDGREN, WALDEMAR, GRATON, L. C., and GORDON, C. H. The ore deposits of New Mexico. Washington, 1910, 361 pp. U. S. Geol. Surv., Prof. Paper 68. (Previous investigations, 214-217. 56 entries. 1860-1908. Regional.)
See 290, 628, 790, 2322, 2379, 2736, 2772.
- NEW QUEBEC.** See 2279.
- NEW SOUTH WALES.**
- 1867 ANDREWS, E. C. Report on the Cobar copper and gold-field. Part I. Sydney, 1913, 207 pp. N. S. Wales Geol. Surv., Min. Res. 17. (Literature, 14. 6 entries. 1880-1911. Regional.)
- 1868 Part II of the Cobar copper and gold-field. Sydney, 1915, 121 pp. (Literature, 3. 19 entries. 1897-1913. Regional.)
- 1869 ARBER, E. A. N. On the Clarke collection of fossil plants from New South Wales. Geol. Soc. London, Q. J. 58, 1902: 25-26. (28 entries. 1828-99. Regional.)
- 1870 BENSON, W. N. The geology and petrology of the Great Serpentine Belt of New South Wales. Linnean Soc. N. S. W., Proc. 38, 1913: 515-517, 595, 722-723; 40, 1915: 168-170, 620-622; 42, 1917: 281-283, 700; 43, 1918: 382-383, 599; 45, 1920: 371-372, 423. (215 entries. 1830-1920. Regional.)
- 1871 BERTRAND, E. G. List of papers dealing with the microscopic structure of the New South Wales kerosene shale. Linnean Soc. N. S. W., Proc. 25, 1900: 647-649. (22 entries. 1893-1900. Regional.)
- 1872 DAVID, [T. W. E.], HELMS, RICHARD, and PITTMAN, E. F. Geological notes on Kosciusko, with special reference to evidences of glacial action. Linnean Soc. N. S. W., Proc. 26, 1901: 70-74. (53 entries. 1840-1900. Regional. Includes works on glaciation in Cainozoic time in the Southern Hemisphere.)
- 1873 DUN, W. S. Contributions to a list of papers and reports dealing with the economic geology of New South Wales. N. S. Wales. Geol. Surv., Rec. 6, 1900: 183-257. (801 entries. 1851-1900. Regional.)
- 1874 MORRISON, M. Notes on some of the dykes and volcanic necks of the Sydney district, with observations on the columnar sandstone. N. S. Wales. Geol. Surv., Rec. 7, 1904: 272-275. (59 entries. 1826-1903. Regional.)
- 1874a *TRICKETT, O. Bibliography of the economic minerals of New South Wales, Pt. 1. Particulars of papers and reports dealing with minerals other than coal. Pt. 2. Particulars of papers and reports dealing with deposits of coal and

*Not seen.

kerosene shale. Sydney, 1919, 171 pp. N. S. Wales, Geol. Surv., Min. Res. 28.

See 763, 920, 1141, 1590.

NEW YORK (CITY).

- 1875 GRATACAP, L. P. Geology of the city of New York. 3d ed. N. Y., 1909, 232 pp. (Bibl., 147-151, 187-188. 49 entries. 1816-1907. Regional. Bibliographies of Manhattan Island, Long Island and Staten Island.)
- 1876 LOBECK, A. K. The superb position of New York City as a center for physiographic study. N. Y. Acad. Sci., Ann. 28, 1918: 37-49. (274 entries. 1874-1917. Regional.)

NEW YORK (STATE).

- 1877 CHADWICK, G. H. Stratigraphy of the New York Clinton. Geol. Soc. Am., Bull. 29, 1918: 367-368. (13 entries. 1842-1915. Regional.)
- 1878 CLARKE, J. M., and LUTHER, D. D. Geologic map and descriptions of the Portage and Nunda quadrangles including a map of Letchworth Park . . . Albany, 1907, 88 pp. N. Y. State Mus., Bull. 118. (Bibl., 44-45. 8 entries. 1843-1903. Regional.)
- 1879 CLELAND, H. F. A study of the fauna of the Hamilton formation of the Cayuga Lake section in central New York. Washington, 1903, 112 pp. U. S. Geol. Surv., Bull. 206. (Bibl., 92-94. 64 entries. 1809-1900. Regional.)
- 1880 DALE, T. N. Geology of the Hudson Valley between the Hoosic and the Kinkerhook. Washington, 1904, 63 pp. U. S. Geol. Surv., Bull. 242. (Literature, 10-11. 21 entries. 1871-1903. Regional.)
- 1881 FAIRCHILD, H. L. Glacial waters in central New York. Albany, 1909, 66 pp. N. Y. State Mus., Bull. 127. (Bibl., 59-61. 44 entries. 1822-1908. Regional.)
- 1882 FAIRCHILD, H. L. The glacial waters in the Black and Mohawk valleys. Albany, 1912, 47 pp. N. Y. State Mus., Bull. 160. (Bibl., 43-44. 40 entries. 1882-1910. Regional.)
- 1883 FAIRCHILD, H. L. Glacial waters in the Lake Erie basin. Albany, 1907, 86 pp. N. Y. State Mus., Bull. 106. (Literature, 6-7. 25 entries. 1878-1904. Regional.)
- 1884 FAIRCHILD, H. L. Pleistocene marine submergence of the Hudson,

Champlain and St. Lawrence valleys. Albany, 1919, 76 pp. N. Y. State Mus., Bull. 209, 210. (167 entries. 1824-1918. Regional.)

- 1885 FAIRCHILD, H. L. Pleistocene of New York and adjacent territory. Geol. Soc. Am., Bull. 27, 1916: 255-262. (128 entries. 1824-1914. Regional.)
- 1886 FAIRCHILD, H. L. Postglacial marine submergence of Long Island. Geol. Soc. Am., Bull. 28, 1917: 307-308. (30 entries. 1843-1917. Regional.)
- 1887 FAIRCHILD, H. L. The Rochester canyon and the Genesee river base-levels. Rochester Acad. Sci., Proc. 6, 1919: 54-55. (33 entries. 1888-1918. Regional.)
- 1888 FETTKKE, C. R. The Manhattan schist of southeastern New York State and its associated igneous rocks. N. Y. Acad. Sci., Ann. 23, 1914: 258-260. (64 entries. 1816-1911. Regional.)
- 1889 FULLER, M. L. The geology of Long Island, New York. Washington, 1914, 231 pp. U. S. Geol. Surv., Prof. Paper 82. (Literature, 4-20. 149 entries. 1750-1908. Footnotes.)
- 1890 GILES, A. W. Brecciation in the Niagara limestone at Rochester, New York. Am. Journ. Sci., 4th ser., 47, 1919: 353-354. (15 entries. 1858-1917. Regional.)
- 1891 GORDON, C. E. Geology of the Poughkeepsie quadrangle. Albany, 1911, 121 pp. N. Y. State Mus., Bull. 148. (Bibl., 110-116. 133 entries. 1809-1910. Regional.)
- 1892 GRABAU, A. W. Geology and paleontology of Eighteen Mile Creek and the lake shore sections of Erie County, New York . . . Buffalo Soc. Nat. Sci., Bull. 6, 1898-99: 380-390. (117 entries. 1843-98. Regional. Footnotes)
- 1893 GRABAU, A. W. Guide to the geology and paleontology of the Schoharie Valley in eastern New York. Albany, 1906, 386 pp. N. Y. State Mus., Bull. 92. (Papers . . . 82-85. 29 entries. 1834-1904. Regional.)
- 1894 HAHN, F. F. Untermeersche Gleitung bei Trenton Falls (Nordamerika) und ihr Verhältnis zu ähnlichen Störungsbildern. N. J. f. Min., B. B. 36, 1913: 40-41. (32 entries. 1842-1912. Regional.)

- 1894a HOPKINS, T. C. The geology of the Syracuse quadrangle. Albany, 1914, 80 pp. N. Y. State Mus., Bull. 171. (Bibl., 53-56. 67 entries. 1857-1909. Regional.) Bibliography of dikes.
- 1895 KEMP, J. F. The geology of the magnetites near Port Henry, New York, and especially those of Mineville. Am. Inst. M. E., Trans. 27, 1898: 201-203. (35 entries. 1842-93. Regional.)
- 1896 KEMP, J. F. Pre-Cambrian formations in the State of New York. Int. Geol. Cong., XI. Stockholm, 1910, C. R. 1912: 717-719. (32 entries. 1865-1910. Regional.)
- 1897 KEMP, J. F., and RUEDEMANN, RUDOLF. Geology of the Elizabethtown and Port Henry quadrangles. Albany, 1910, 173 pp. N. Y. State Mus., Bull. 138. (Bibl., 162-165. 65 entries. 1842-1908. Regional.)
- 1898 KOEBERLIN, F. R. The Brewster iron-bearing district of New York. Econ. Geol., 4, 1909: 754. 16 entries. n. d. Regional.)
- 1899 LEIGHTON, HENRY. Chronological list of maps showing geology of New York State. N. Y. State Mus., Bull. 133, 1909: 124-155. (329 entries. 1809-1908. Regional.)
- 1900 LUTHER, D. D. Geology of the Attica-Depew quadrangles. Albany, 1914, 34 pp. N. Y. State Mus., Bull. 172. (Bibl., 30. 10 entries. 1842-?. Regional.)
- 1901 MILLER, W. J. The geological history of New York State. Albany, 1914, 130 pp. N. Y. State Mus., Bull. 168. (Bibl., 120-126. 108 entries. 1843-1912. Regional.)
- 1902 NEWLAND, D. H. Geology of the Adirondack magnetic iron ores . . . Albany, 1908, 182 pp. N. Y. State Mus., Bull. 119. (Bibl., 171-172. 25 entries. 1869-1907. Regional.)
- 1903 NEWLAND, D. H. The mining and quarry industry of New York State. Report of operations and production during 1905. [Albany, 1906], pp. 45-199. N. Y. State Mus., Bull. 102. (Bibl. through text. 75 entries. 1842-1905. Regional.)
- 1904 NEWLAND, D. H., and HARTNAGEL, C. A. Iron ores of the Clinton formation in New York state. Albany, 1908, 76 pp. N. Y. State Mus., Bull. 123. (Bibl., 71-72. 26 entries. 1829-1906. Regional.)
- 1905 RIES, HEINRICH. Geology of Orange County. N. Y. State Mus., Ann. Rept. 49-2, 1898: 397-399. (32 entries. 1871-95. Regional.)
- 1906 RUEDEMANN, RUDOLF. The lower Siluric shales of the Mohawk valley. Albany, 1912, 151 pp. N. Y. State Mus., Bull. 162. (Bibl., 69-73. 68 entries. 1842-1911. Regional.)
- 1907 SHIMER, H. W. Upper Siluric and Lower Devonian faunas of Trilobite Mountain, Orange County, New York. N. Y. State Mus., Bull. 80, 1905: 269. (21 entries. 1876-1902. Regional.)
- 1908 TARR, R. S. The physical geography of New York State. Am. Geog. Soc., Bull. 28, 1896: 102-129; 29, 1897: 16-40; 30, 1898: 28-56, 183-225, 375-407; 31, 1899: 101-117, 217-235, 315-343, 417-443. (Footnotes.)
- 1909 TARR, R. S. The physical geography of New York State. N. Y., 1902, 397 pp. (Many footnote references.)
- 1910 WHITLOCK, H. P. List of New York mineral localities. Albany, 1903, 108 pp. N. Y. State Mus., Bull. 70. (Bibl., 11-21. 231 entries. 1814-1901. Regional.)
- 1911 WOODWORTH, J. B. Ancient water levels of the Champlain and Hudson valleys. Albany, 1905, pp. 65-265. N. Y. State Mus., Bull. 84. (Bibl., 246-253. 170 entries. 1820-1904. Regional.)
- 1912 WOODWORTH, J. B. Pleistocene geology of portions of Nassau County and Borough of Queens. N. Y. State Mus., Bull. 48, 1901: 664. (13 entries. 1843-1901. Regional.)
See 60, 94, 95, 568, 655, 669, 670, 701, 942, 1077, 1331, 1353, 1354, 1859, 1956, 1957, 2117, 2117a, 2222, 2379, 2462, 2920.
- NEW ZEALAND.**
- 1913 ADAMS, J. H. The geology of the Whatatutu subdivision, Raukumara division, Poverty Bay. Wellington, 1910, 48 pp. N. Z. Geol. Surv., Bull. 9 (n. s.). (Literature, 10-11. 15 entries. 1874-1908. Regional.)
- 1914 ARBER, E. A. N. The earlier Mesozoic floras of New Zealand. Wellington, 1917, 80 pp. N. Z. Geol. Surv., Pal. Bull. 6. (Bibl., 66-72.

- 156 entries. 1828-1914. General.)
- 1915 BELL, J. M., and others. The geology of the Dun Mountain subdivision, Nelson. Wellington, 1911, 71 pp. N. Z. Geol. Surv., Bull. 12 (n. s.) (Literature, 6-9. 55 entries. 1863-1910. Regional.)
- 1916 BELL, J. M. The geology of the Parapara subdivision, Karamea, Nelson. Wellington, 1907, 111 pp. N. Z. Geol. Surv., Bull. 3 (n. s.) (Literature, 8-11. 60 entries. 1855-1906. Regional.)
- 1917 BELL, J. M., and CLARKE, E. DE C. The geology of the Whangaroa subdivision, Hokianga division. Wellington, 1909, 114 pp. N. Z. Geol. Surv., Bull. 8 (n. s.) (Literature, 12-14. 52 entries. 1839-1908. Regional.)
- 1918 BELL, J. M., and FRASER, COLIN. The geology of the Waihi-Tairua subdivision, Hauraki division. Wellington, 1912, 192 pp. N. Z. Geol. Surv., Bull. 15 (n. s.) (Literature, 4-6. 66 entries. 1871-1911. Regional.)
- 1919 CLARKE, E. DE C. The geology of the New Plymouth subdivision, Taranaki division. Wellington, 1912, 58 pp. N. Z. Geol. Surv., Bull. 14 (n. s.) (Literature, 9-11. 25 entries. 1843-1910. Regional.)
- 1920 COTTON, C. A. Block mountains in New Zealand. Am. Journ. Sci., 4th ser. 44, 1917: 292-293. (49 entries. 1869-1916. Regional.)
- 1921 FINLAYSON, A. M. Problems in the geology of the Hauraki gold fields, New Zealand. Econ. Geol., 4, 1909: 645. (12 entries. 1882-1908. Regional.)
- 1922 FRASER, COLIN. The geology of the Coromandel subdivision, Hauraki, Auckland. Wellington, 1907, 154 pp. N. Z. Geol. Surv., Bull. 4 (n. s.) (Literature, 9-11. 48 entries. 1854-1906. Regional.)
- 1923 FRASER, COLIN. The geology of the Thames subdivision, Hauraki, Auckland. Wellington, 1910, 136 pp. N. Z. Geol. Surv., Bull. 10 (n. s.) (Literature, 4-7, 102 entries. 1863-1909. Regional.)
- 1924 HAMILTON, A. List of papers on the geology of New Zealand. N. Z. Inst., Trans. and Proc. 35, 1903: 489-546. (ca 646 entries. 1854-1900. Regional.)
- 1925 HAMILTON, A. List of papers on the palaeontology of New Zealand including the titles of those stratigraphical papers containing important lists of fossils. N. Z. Inst., Trans. 42, 1910: 56-63. (116 entries. 1850-1908. Regional.)
- 1926 HENDERSON, J. The geology and mineral resources of the Reefton subdivision. Westport and north Westland divisions. Wellington, 1917, 232 pp. N. Z. Geol. Surv., Bull. 18 (n. s.) (Bibl., 7-13. 133 entries. 1849-1915. Regional.)
- 1927 HENDERSON, J. The geology of the Aroha subdivisions, Hauraki, Auckland. Wellington, 1913, 127 pp. N. Z. Geol. Surv., Bull. 16 (n. s.) (Literature, 5-9. 107 entries. 1843-1912. Regional.)
- 1928 HENDERSON, J., and ONGLEY, M. The geology of the Gisborne and Whatatutu subdivisions, Raukumara division. Wellington, 1920, 88 pp. N. Z. Geol. Surv., Bull. 21 (n. s.) (Literature, 6-11. 58 entries. 1773-1916. Regional.)
- 1929 MARSHALL, P. The geology of the Tuapeka district, central Otago division. Wellington, 1918, 79 pp. N. Z. Geol. Surv., Bull. 19 (n. s.) (Literature, 8-10, 41 entries. 1861-1916. Regional.)
- 1930 MARSHALL, P. New Zealand and adjacent islands. Heidelberg, 1911, 78 pp. Handb. reg. Geol., 5 heft. (Literature, 69-77, 278 entries. 1863-1910. Regional.)
- 1931 MORGAN, P. G. The geology of the Greymouth subdivision, north Westland. Wellington, 1911, 159 pp. N. Z. Geol. Surv., Bull. 13 (n. s.) (Literature, 3-11, 79 entries. 1861-1910. Regional.)
- 1932 MORGAN, P. G. The geology of the Miconui subdivision, north Westland. Wellington, 1908, 110 pp. N. Z. Geol. Surv., Bull. 6 (n. s.) (Literature, 16-19. 34 entries. 1867-1906. Regional.)
- 1933 MORGAN, P. G. The Lawrence-Waipori district. N. Z. Geol. Surv., Ann. Rept. (n. s.) 8, 2d. ed., 1914: 156. (11 entries. 1875-1906. Regional.)
- 1934 MORGAN, P. G. The limestone and phosphate resources of New Zealand (considered principally in relation to agriculture). Part I. Limestone. Wellington, 1919, 316 pp. N. Z. Geol. Surv., Bull.

- 22 (n. s.) (Literature, 30-34. 36 entries. 1877-1919. Regional.)
- 1935 MORGAN, P. G. Marble of Sandy Bay district. N. Z. Geol. Surv., Ann. Rept. (n. s.) 9, 1915: 86. (7 entries. 1881-1913. Regional.)
- 1936 MORGAN, P. G. The Waikaka gold-mining field. N. Z. Geol. Surv., Ann. Rept. (n. s.) 8, 2d. ed., 1914: 151-152. (37 entries. 1872-1909. Regional.)
- 1937 MORGAN, P. G. Weka Pass district, north Canterbury. N. Z. Geol. Surv., Ann. Rept. (n. s.) 9, 1915: 93. (27 entries. 1869-1913. Regional.)
- 1938 MORGAN, P. G., and BARTNUM, J. A. The geology and mineral resources of the Buller-Mokikini subdivision, Westport division. Wellington, 1915, 210 pp. N. Z. Geol. Surv., Bull. 17 (n. s.) (Literature, 9-22. 151 entries. 1847-1914. Regional.)
- 1938a MORGAN, P. G., and BARTNUM, J. A. List of the minerals of New Zealand. Wellington, 1913, 32 pp. (Literature, 4. 8 entries. 1878-1912. Regional.)
- 1939 PARK, JAMES. The geology of New Zealand: an introduction to the historical, structural, and economic geology. Christchurch . . . N. Z., 1910, 488 pp. (Bibl., 409-464. 1450 entries. 1859-1910. Regional.)
- 1940 PARK, JAMES. The geology of the Cromwell subdivision, western Otago division. Wellington, 1908, 92 pp. N. Z. Geol. Surv., Bull. 5 (n. s.) (Previous work, 3-5. 33 entries. 1866-1906. Regional.)
- 1941 PARK, JAMES. The geology of the Oamaru district, north Otago (eastern Otago division). Wellington, 1918, 119 pp. N. Z. Geol. Surv., Bull. 20 (n. s.) (Literature, 4-9. 65 entries. 1850-1916. Regional.)
- 1942 PARK, JAMES. The geology of the Queenstown subdivision, western Otago division. Wellington, 1909, 112 pp. N. Z. Geol. Surv., Bull. 7 (n. s.) (Previous work, 5-7. 47 entries. 1855-1908. Regional.)
- 1943 SPEIGHT, R. The older gravels of North Canterbury. N. Z. Inst., Trans. and Proc. 51, 1919: 281. (10 entries. 1877-1918. Regional.)
- 1944 SPEIGHT, R. Structural and glacial features of the Hurunui Valley. N. Z. Inst., Trans. and Proc. 50, 1917: 105. (8 entries. 1871-1916. Regional.)
- 1945 THOMSON, J. A. Materials for the palaeontology of New Zealand. Wellington, 1913, 104 pp. N. Z. Geol. Surv., Pal. Bull. 1. (Bibl., 51-57. 464 entries. 1841-1912. Regional.)
- 1946 THOMSON, J. A. Mineral prospects of the Maharahara district, Hawke's Bay. N. Z. Geol. Surv., Ann. Rept. (n. s.) 8, 2d ed., 1914: 169-170. (25 entries. 1869-1909. Regional.)
- 1947 THOMSON, J. A. The Notocene geology of the Middle Waipara and Weka Pass district, North Canterbury, New Zealand. N. Z. Inst., Trans. and Proc., 52, 1920: 412-415. (91 entries. 1855-1919. Regional.)
- 1948 TRECHMANN, C. T. The Trias of New Zealand. Geol. Soc. London, Q. J. 73, 1917: 239-240. (52 entries. 1854-1913. Regional.)
- 1949 UTTLEY, G. H. Remarks on Bulletin No. 20 (New Series) of the New Zealand Geological Survey [Geology of the Oamaru district]. N. Z. Inst., Trans. and Proc., 52, 1920: 182. (7 entries. 1887-1918. Regional.) Cf. 1941.
- 1950 UTTLEY, G. H. Tertiary geology of the area between Wharekuri and the Otiake River, North Otago. N. Z. Inst., Trans. and Proc. 52, 1920: 168. (12 entries. 1882-1918. Regional.)
- 1951 UTTLEY, G. H. The volcanic rocks of Oamaru, with special reference to their position in the stratigraphical series. N. Z. Inst., Trans. and Proc. 50, 1917: 117. (18 entries. 1866-1916. Regional.)
- 1952 WEBB, E. J. H. The geology of the Mount Radiant subdivision. Westport division. Wellington, 1910, 46 pp. N. Z. Geol. Surv., Bull. 11 (n. s.) (Literature, 7. 9 entries. 1861-1909. Regional.)
- 1953 WILCKENS, OTTO. Die geologische, paläontologische und petrographische Literatur über Neuseeland bis zum Jahr 1907. N. J. f. Min., 1909-2: 265-301, 433-464. (1279 entries. 1843-1909. Regional.)
See 691, 735, 752, 944, 961, 1641, 1831, 2134.

NEWFOUNDLAND.

- 1954 DALE, N. C. The Cambrian manganese deposits of Conception and Trinity Bays, Newfoundland. *Am. Phil. Soc., Proc.* 54, 1915: 454-456. Princeton Univ. Cont. Geol. Newfoundland, 2, 1915: 454-456. (25 entries. 1857-1913. Regional.)
- 1955 HAYES, A. O. Wabana iron ore of Newfoundland. *Canada Geol. Surv. Mem.* 78, 1915: 95-100. Princeton Univ. Cont. Geol. Newfoundland, 1, 1915: 95-100. (53 entries. 1843-1913. Regional. Issued as thesis of Princeton University, 1914.)

See 1692, 2150.

NIAGARA FALLS.

- 1956 GRABAU, A. W. Guide to the geology and paleontology of Niagara Falls and vicinity. Albany, 1901, 284 pp. N. Y. State Mus., Bull. 45, Vol. 9. Buffalo Soc. Nat. Sci., Bull. 7, 1901: 253-262. (Partial bibl., 253-262. 194 entries. 1835-1901. Select.)
- 1957 HASKELL, D. C. A partial bibliography of Niagara Falls. *Comm. State Reserv. Niagara, Ann. Rept.* 29, 1913: 49-98. (ca 850 entries. 1751-1911. Regional.)

NICKEL.

- 1958 ROYAL ONTARIO NICKEL COMMISSION. Report . . . with Appendix. Toronto, 1917, 584+219 pp. (Bibl., 529-584. 755 entries. 1803-1917. General.)

See 1588, 2023, 2293.

NIGERIA. See 109, p. 87.**NILE RIVER.**

- 1959 LYONS, H. G. The physiography of the river Nile and its basin. Cairo, 1906, 411 pp. Egypt. Surv. Dept. (Bibl., [391]-397. 216 entries. 1806-1905. Regional.)

NITRATES.

- 1960 SEMPER, and MICHELS. La Industria del salitre en Chile. Santiago de Chile, 1908, 418 pp. (Bibl., 414-418. 105 entries. 1843-1907. Regional.)
- 1961 SINGEWALD, J. T., jr. and MILLER, B. L. The genesis of the Chilean nitrate deposits. *Pan-Am. Sci. Cong., Wash., D. C., Proc.* 2d. VII, 1917: 878-879. *Econ. Geol.*, 11, 1916: 113-114. (26 entries. 1846-1911. Regional.)

See 682, 1738, 1740a, 2476.

NORTH AMERICA.

- 1962 WILLIS, BAILEY. Index to the stratigraphy of North America. Washington, 1912, 894 pp. U.S. Geol. Surv., Prof. Paper 71. (Bibl., 840-865. 953 entries. 1832-1911. Regional.)

See 7.

NORTH CAROLINA.

- 1963 CLARK, W. B., MILLER, B. L., and others. The Coastal Plain of North Carolina. Raleigh, 1912, 540 pp. N. C. Geol. Surv., Vol. 3. (Bibl., 44-73. 152 entries. 1791-1910. Regional. Bibliography by B. L. Miller and L. W. Stephenson.)
- 1964 LANEY, F. B. The Gold Hill mining district. Raleigh, 1910, 137 pp. N. C. Geol. Surv., Bull. 21. (Bibl., 119-137. 266 entries. 1799-1907. Regional.)
- 1965 LANEY, F. B., and WOOD, K. H. Bibliography of North Carolina geology, mineralogy and geography. Raleigh, 1909, 428 pp. N. C. Geol. Surv., Bull. 18. (1935 entries. 1761?-1909. Regional. List of maps given: 784 entries. 1590-1909.)
- 1966 POGUE, J. E., jr. Cid mining district of Davidson County, North Carolina. Raleigh, 1910, 144 pp. N. C. Geol. Surv., Bull. 22. (Bibl., 135-140. 84 entries. 1799-1909. Regional.)
- 1967 STEPHENSON, L. W., and JOHNSON, B. L. The water resources of the Coastal Plain of North Carolina . . . N. C. Geol. Surv., Vol. 3, pt. 2, 1912: 336-341. (47 entries. 1709-1908. Regional. A bibliography of underground waters.)

See 700, 750, 843, 845, 859, 1319.

NORTH DAKOTA. See 2770.**NORTHWEST TERRITORY.** See ALBERTA.**NORWAY.**

- 1968 AHLMANN, H. W. Geomorphological studies in Norway. *Geogr. Ann.*, 1, 1919: 247-252. (138 entries. 1824-1916. Regional.)
- 1969 BUGGE, CARL. Kongsbergfeltets geologi. Kristiania, 1917, 272 pp. *Norges geol. Undersök.* 82. (Literature, 240-244. 61 entries. 1711-1914. Regional.)
- 1970 GOLDSCHMIDT, V. M. Konglomeraterne inden høifjeldskvartsen. Kristiania, 1916, 61 pp. *Norges geol. Undersök.* 77. (Literature, 2-8. 19 entries. 1823-1913. Regional.)

- 1971 HOLMSEN, GUNNAR. Tekst til geologisk oversigtskart over Østerdalen-Faemunds-Støket. Kristiania, 1915, 40 pp. Norges geol. Undersök. 74. (Literature, 36-37. 35 entries. 1819-1913. Regional.)
- 1972 KOLDERUP, C. F. Egersund. Fjeldbygningen inden rektangelkartet Egersunds omraade. Kristiania, 1914, 60 pp. Norges geol. Undersök. 71. (Literature, 7-8. 17 entries. 1823-1912. Regional.)
- 1973 KOLDERUP, C. F., and MONCKTON, H. W., *comp.* A list of works relating to the geology of the Bergen district, Norway. Geol. Assoc., Proc. 23, 1912: 55-60. (117 entries. 1771-1911. Regional.)
- 1974 NICOLAI, GERHARD. Die norwegischen Eisenerze. Zeit. f. prakt. Geol., 22, 1914: 82-83. (51 entries. 1862-1912. Regional.)
- 1975 OXAAL, JOHN. Dunderlandsdalen. Fjeldbygningen inden gradavdelingskartet Dunderlandsdalens omraade. Kristiania, 1919, [84] pp. Norges geol. Undersök. 86. (Literature, 70. 25 entries. 1828-1914. Regional.)
- 1976 ØYEN, P. A. Nogle bemerkninger om ra-perioden i Norge. Norsk geol. Tidsskr., 2, no. 7, 1911: 36-40. (131 entries. 1802-1911. Regional.)
- 1977 REUSCH, HANS. Geologisk litteratur vedkommende Norge 1896-1900. Kristiania, 1902, 136 pp. Norges geol. Undersök., 33. (258 entries. 1896-1900. Regional.)
- 1978 ———. Geologisk litteratur vedkommende Norge 1901-05. Kristiania, 1907, 232 pp. Norges geol. Undersök. 44. (439 entries. 1901-05. Regional.)
- 1979 VOGT, J. H. L. De gamle norske jernverk. Kristiania, 1908, 83 pp. Norges geol. Undersök. 46. (Literature, 4-5. 28 entries. 1755-1906. Regional.)
- 1979a VOGT, J. H. L. Norges jermalmforekomster. Kristiania, 1910, 225 pp. Norges geol. Undersök., 51. (Literatur, 7-8. 34 entries. 1849-1908. Regional.)
- 1980 WERENSKIOLD, W. Tekst til geologisk kart over strøkene mellem Saetersdalen og Rinkerike. Kristiania, 1912, 43 pp. Norges geol. Undersök. 66. (Literature, 41-43. 80 entries. 1812-1912. Regional.)
- See 407, 915, 918, 1074, 1317, 1590, 2267, 2272.
- See also FENNOSCANDIA; SCANDINAVIA.
- NOVA SCOTIA.**
- 1981 CANADA. DEPT. OF THE INTERIOR. Natural resources intelligence branch. The resources of Nova Scotia . . . 1920. Ottawa, 1920, 71 pp. (Bibl., 70. 41 entries. 1818-1918. Regional.)
- 1982 DALY, R. A. The physiography of Acadia. Harvard Univ. Mus. Comp. Zool., Bull. 38. Geol. ser. 5, no. 3, 1901: 99-102. (47 entries. 1868-98. Regional.)
- 1983 MALCOLM, W. Gold fields of Nova Scotia. Ottawa, 1912, 331 pp. Canada Geol. Surv., Mem. 20-E. (Bibl., 311-319. 103 entries. 1829-1909. Regional.)
- 1984 TWENHOFEL, W. H. The Silurian section at Arisaig, Nova Scotia. Am. Journ. Sci., 4th ser. 28, 1909: 163-164. (35 entries. 1836-1901. Regional.)
- 1985 WILLIAMS, M. Y. Arisaig-Antigonish district, Nova Scotia. Ottawa, 1914, 173 pp. Canada Geol. Surv., Mem. 60. Geol. ser. 47. (Bibl., 154-161. 84 entries. 1827-1911. Regional.)
- 1986 WOODMAN, J. E. Nomenclature of the gold-bearing metamorphic series of Nova Scotia. Am. Geol. 33, 1904: 369-370. (12 entries. 1828-1900. Regional.)
- 1987 WOODMAN, J. E. Probable age of the Meguma (gold-bearing) series of Nova Scotia. Geol. Soc. Am., Bull. 19, 1908: 111, 112. (25 entries. 1843-1903. Regional.)
- 1988 WOODMAN, J. E. The sediments of the Meguma series of Nova Scotia. Am. Geol., 34, 1904: 34. (8 entries. 1869-98. Regional.)
- 1989 WOODMAN, J. E. Studies in the gold-bearing slates of Nova Scotia. Boston Soc. Nat. Hist., Proc. 28, 1899: 403-407. (77 entries. 1836-95. Regional.)
- See 2222.
- NUMMULITES.**
- 1990 COTTER, G. DE P. Notes on the value of nummulites as zone fossils, with a description of some Burmese species. India Geol. Surv., Rec. 44, 1914: 81-83. (37 entries. 1879-1912. General.)
- 1991 PREVER, PIETRO. Le Nummuliti della Forca di Presta . . . Genève, 1902, 121 pp. Soc. paléont. suisse, Mém. 29. (Works consulted, 18-21, 121. 101 entries. 1803-1902. General.)

NYASALAND. *See* 102.**OBSIDIANITES.**

- 1992 DUNN, E. J. Australites. Melbourne, 1912, 23 pp. Vict. Geol. Surv., Bull. 27. (Bibl., 15-18. 41 entries. 1809-1911. General. A list of articles on obsidianites, etc.)
- 1993 SUMMERS, H. S. Obsidianites—their origin from a chemical standpoint. Roy. Soc. Vict., Proc. 21, 1909: 442-443. (14 entries. 1896-1908. Regional.)
- 1994 WALCOTT, R. H. Descriptions of the Victorian meteorites, with notes on obsidianites. Melbourne Nat. Mus., Mem. 6, 1915: 64-65. (45 entries. 1855-1914. General. A bibliography of obsidianites.)

OCEANICA.

- 1995 MARSHALL, P. Oceanica. Heidelberg, 1911, 36 pp. Handb. reg. Geol., 9 heft. (Literature, 32-36. 112 entries. 1831-1910. Regional.)

See also Names of island groups.

OCEANOGRAPHY. *See* 96.**ODINITE.**

- 1996 SANDKÜHLER, BEDA. Der "Odinit." Ein Beitrag zur petrographischen Systematik. Ver. f. Erdk. Darmstadt, Notizbl. 5 folge, hft. 2, 1917: 123-126. (48 entries. 1891-1914. General.)

OHIO.

- 1997 NICKLES, J. M. The geology of Cincinnati. Cinn. Soc. Nat. Hist., Journ. 20, 1902: 98-100. (30 entries. 1838-98. Regional.)
- 1998 PROSSER, M. W. A bibliography of the publications relating to the geology of Ohio, other than those of the state geological survey. Ohio Geol. Surv., Bull. 4th ser. 6-II, 1906: 235-332. (964 entries. 1818-1906. Regional.)
- See* 65, 626, 631, 739, 914a, 2379, 2442.

OHIO RIVER VALLEY.

- 1999 LEVERETT, FRANK. Glacial formations and drainage features of the Erie and Ohio basins. Washington, 1902, 802 pp. U. S. Geol. Surv., Mon. 41. (Bibl., 28-49. 455 entries. 1818-99. Regional.)

OIL and GAS.

- 2000 ALLEN, M. A. Laws pertaining to oil. Tucson, Arizona, 1917-1918, 12 pp. Arizona Univ. Bull. 84. Oil ser. 4. (3 entries. n. d. General.)

- 2001 ALLEN, M. A. Oil and its geology. Tucson, Arizona, 1917-18, [34 pp. Arizona Univ. Bull. 65. Oil ser. 1. (20 entries. 1895-1916. General.)
- 2002 ALLEN, M. A. Prospecting for petroleum. Tucson, Arizona, 1917-18, 18 pp. Arizona Univ. Bull. 69, Oil ser. 2. (5 entries. n. d. General.)
- 2003 BEAL, C. H. The decline and ultimate production of oil wells, with notes on the valuation of oil properties. Washington, 1919, 215 pp. U. S. Bur. Mines, Bull. 177. (Bibl., 207-208. 37 entries. 1898-1918. Select.)
- 2004 BOWIE, C. P. Extinguishing and preventing oil and gas fires. Washington, 1918, 50 pp. U. S. Bur. Mines, Bull. 170. (Bibl., 43-45. 38 entries. 1893-1917. General.)
- 2005 BREGER, C. L. Index to the world's current oil literature. Min. and Eng. World, 36, 1912: 1310-1316. (1911-1912. General.)
- 2005a *CHAMBRIER, PAUL DE. Historique de Pêchebronn, 1498-1918. Paris, 1919, 329 pp. (Bibl., 323-329.)
- 2005b *CROSS, ROY. A handbook of petroleum, asphalt and natural gas methods of analysis, specifications, properties, refining processes, statistics, tables, and bibliography. Kansas City, 1919, 496 pp. Kansas City testing laboratory. Bulletin 15. (Bibl., 459-466.)
- 2006 MEXICO. DEPARTAMENTO DE PETRÓLEO. Boletín del petróleo. Vol. 1-1916—
(General.)
Each monthly issue contains a section headed "Bibliografía" del petróleo extranjero. Beginning with Vol. 9, 1920 the title given is Bibliografía del petróleo extranjero, formada por el "Bureau of mines" de los estados unidos de Norteamérica.
Each volume contains "Bibliografía de los documentos referentes a petróleo, encontrados en la revisión que se hizo del diario oficial, desde Enero de 1899."
- 2006a *MUCK, JOSEF. Der Erdwachsbergbau in Borysaw. Berlin, 1903, 218 pp. (Petroleumindustrie, 211-215.)
- 2007 MÜNCHSDORFER, FRANZ. Die Gas- und Schwefelbrunnen im bayerischen Unterinngebiet. Geogn.

*Not seen.

- Jahresh., 24, 1911: 256-257. (32 entries. 1805-1911. Regional.)
- 2008 PEARSON, R. The discovery of natural gas in Sussex, Heathfield district. Inst. M. E., Trans. 26, 1903-04: 507. (10 entries. 1897-1902. Regional.)
- 2009 REDWOOD, Sir B. Petroleum . . . 2d ed. 2 vols. London, 1906. (Bibl., Vol. 2: 889-1001. 5904 entries. 1615-1905. General. Bibliography compiled by W. H. Dalton and L. V. Dalton.)
- 2009a SAN FRANCISCO. MECHANICS INSTITUTE. Literature available in the library on petroleum, with some reference on asphaltum. San Francisco, 1903. 24 p.
- 2009b *SCHWEER, WALTHER. Die türkisch-persischen Erdölvorkommen. Hamburg, 1919, 247 pp. Abhandlungen des hamburgischen Kolonialinstituts, 40. Reihe A. Rechts- und Staatswissenschaften, 7. (Literature, 149-168.)
- 2010 STOPNEVIC, A. D. Gaz naturel, Erdgas, Naturgas, Naturelgas. (Essai de bibliographie.) Ann. géol. et min. Russ., 13, no. 7, 1911: 197-205. (255 entries. 1837-1911. General.)
- 2011 TOUGH, F. B. Methods of shutting off water in oil and gas wells. Washington, 1918, 118 pp. U. S. Bur. Mines, Bull. 163. (16 entries. 1910-17. Select.)
- 2012 U. S. GEOLOGICAL SURVEY. . . , Survey publications, 1901-1914 on the oil fields of the United States. *Its Min. Res.* 1914-II, 1916: 1093-1098. (106 entries. 1901-14. Regional.)
- 2013 WAGY, E. W. Perforated casing and screen pipe in oil wells. Washington, 1920, 48 pp. U. S. Bur. Mines. Tech. Paper 247. (Bibl., 44-45. 46 entries. 1910-19. Select.)
- 2014 WILSON, E. M. Petroleo crude como combustible. [Mexico 1917], 80 pp. (Bibl., 76-80. 133 entries. 1887-1915. General. See 8, 16, 132, 199, 263, 264, 271, 284, 285, 477, 513a, 561, 571, 572, 573, 585, 594, 598, 599, 616, 682, 729, 734, 740, 882a, 890a, 1386, 1395, 1419, 1420, 1461, 1544, 1549, 1716, 1718, 1740a, 1903, 2016, 2018, 2056, 2131, 2347, 2355, 2356, 2357, 2358, 2366, 2484, 2486, 2536, 2607, 2829, 2879, 2908, 2911, 2912, 2913, 2914, 2915.)
- OIL SHALES.**
- 2015 *ALDERSON, V. C. The oil shale industry. N. Y., 1920, 175pp. 15pls.
- 2015a WINCHESTER, D. E. Oil shale in northwestern Colorado and adjacent areas. U. S. Geol. Surv., Bull. 641, 1916: 191-198. (126 entries. 1786-1914. General.) See 1544, 1871, 2005, 2650.
- OKLAHOMA.**
- 2016 BOSWORTH, T. O. Geology of the Mid Continent oil fields of Kansas, Oklahoma and north Texas. N. Y., 1920, 314 pp. (Bibl., 3-6, 40 entries. n. d. Select.)
- 2017 TROUT, L. E., and MYERS, G. H. Bibliography of Oklahoma geology with subject index. Norman, 1915, 105 pp. Okla. Geol. Surv., Bull. 25. 639 entries. 1791-1915. Regional.)
- 2018 WEGEMANN, C. H. Anticlinal structure in parts of Cotton and Jefferson counties, Oklahoma. Washington, 1915, 105 pp. U. S. Geol. Surv., Bull. 602. (Bibl., 103-105. 63 entries. 1882-1913. Regional.) See 655, 1318, 2509, 2710, 2920.
- OLD RED SANDSTONE.** See 1334.
- OLIGOCENE.** See 327, 432, 440, 441, 463, 581, 611, 834, 1041, 1116, 1598, 1599, 1612, 2060a, 2251, 2252, 2587, 2607, 2762.
- ONTARIO.**
- 2019 BELL, J. M. Iron ranges of Michipicoten west. Ontario Bur. Mines, Rept. 14-I, 1905: 280. (20 entries. 1846-1902. Regional.)
- 2020 BURROWS, A. G., and HOPKINS, P. E. The Kirkland lake and Swastika gold areas and Maisonville, Grenfell and Eby townships. Toronto, 1914, 35 pp. Ontario Bur. Mines, Ann. Rept. 23, II, 1914. (Bibl., 35. 4 entries. 1913. Regional.)
- 2021 COLLINS, W. H. A geological reconnaissance of the region traversed by the national transcontinental railway between Lake Nipigon and Clay lake, Ontario. Ottawa, 1909, 67 pp. Canada Geol. Surv., No. 1059. (Bibl., 12. 27 entries. 1858-1908. Regional.)
- 2022 COLLINS, W. H. Onaping map-area. Ottawa, 1917, 157 pp. Canada Geol. Surv., Mem. 95.

*Not seen.

- Geol. ser. 77. (Bibl., 5-7. 17 entries. 1875-1912. Regional.)
- 2023 DICKSON, C. W. The ore deposits of Sudbury, Ontario. *Am. Inst. M. E.*, Trans. 34, 1904: 65-67. (45 entries. 1888-1901. Regional.)
- 2024 GOLDTHWAIT, J. W. An instrumental survey of the shorelines of the extinct lakes Algonquin and Nipissing in southwestern Ontario. Ottawa, 1910, 57 pp. Canada Geol. Surv., Mem. 10. (Bibl., 49-54. 37 entries. 1845-1908. Regional.)
- 2025 HOPKINS, P. E. The Kowkash gold area (second report). Ontario Bur. Mines, Ann. Rept. 26, 1917: 194-195. (13 entries. 1870-1916. Regional.)
- 2026 HORE, R. E. Geology of the Cobalt district, Ontario, Canada. *Am. Inst. M. E.*, Trans. 42, 1912: 498-499. (35 entries. 1845-1911. Regional.)
- 2027 JOHNSTON, W. A. Pleistocene and recent deposits in the vicinity of Ottawa, with a description of the soils. Ottawa, 1917, 69 pp. Canada Geol. Surv., Mem. 101. Geol. ser. 84. (Bibl., 3. 13 entries. 1863-1916. Regional.)
- 2028 JOHNSTON, W. A. Rainy River district, Ontario. Surficial geology and soils. Ottawa, 1915, 123 pp. Canada Geol. Surv., Mem. 82. Geol. ser. 68. (Bibl., 93-95. 25 entries. 1825-1915. Regional.)
- 2029 KNIGHT, C. W. Notes on some deposits in the eastern Ontario gold belt. *Canad. Min. Inst., Journ.* 7, 1904: 242. (13 entries. 1886-1903. Regional.)
- 2030 LANE, A. C. Diamond drilling at Point Mamainse Province of Ontario. Ottawa, 1911, 59 pp. Canada Dept. Mines, Mines Br. Bull. 6. (Bibl., 12-13. 8 entries. 1847-99. Regional.)
- 2031 MACKENZIE, G. C. The iron and steel industry of Ontario. Ontario Bur. Mines, Ann. Rept. 17, 1908: 340-342. (76 entries. 1866-1908. Regional.)
- 2032 PARKS, W. A. Palaeozoic fossils from a region southwest of Hudson Bay. Toronto Univ. Studies, Geol. ser. 9, 1915: 6-8. (31 entries. 1852-1913. Regional.)
- 2033 SHIMER, H. W., and GRABAU, A. W. Hamilton group of Thedford, Ontario. *Geol. Soc. Am., Bull.* 13, 1902: 186. (14 entries. 1860-87. Regional.)
- 2034 STAUFFER, C. R. The Devonian of southwestern Ontario. Ottawa, 1915, 341 pp. Canada Geol. Surv., Mem. 34. Geol. ser. 63. (Bibl., 259-270. 115 entries. 1824-1904. Regional.)
- 2035 WILLIAMS, M. Y. The Silurian geology and faunas of Ontario peninsula, and Manitoulin and adjacent islands. Ottawa, 1919, 195 pp. Canada Geol. Surv., Mem. 111. Geol. ser. 91. (Bibl., 4-7. 104 entries. 1863-1918. Regional.)
- 2036 WILSON, A. W. G. Geology of the Nipigon basin, Ontario. Ottawa, 1910, 152 pp. Canada Geol. Surv., Mem. 1. (Bibl., 19-22. 34 entries. 1863-1909. Regional.)
- 2037 WILSON, A. W. G. Physical geology of central Ontario. *Canad. Inst., Trans.* 7, 1901: 185-186. (38 entries. 1843-1901. Regional.)
- 2038 WILSON, M. E. Geology and economic resources of the Larder Lake district, Ont., and adjoining portions of Pontiac county, Que. Ottawa, 1912, 62 pp. Canada Geol. Surv., Mem. 17-E. (Bibl., 9. 7 entries. 1872-1909. Regional.)
- See 66, 66a, 307, 2222, 2774.
- OOLITES.**
- 2039 BROWN, T. C. Origin of oolites and the oolite texture in rocks. *Geol. Soc. Am., Bull.* 25, 1914: 774-777. (50 entries. 1667-1913. General.)
- 2040 HOPKINS, T. C., and SIEBENTHAL, C. E. The Bedford oolitic limestone of Indiana. Indiana Dept. Geol., Ann. Rept. 21, 1896: 409-412. (57 entries. 1848-95. Regional.)
- ORDOVICIAN.**
- 2041 BASSLER, R. S. Bibliographic index of American Ordovician and Silurian fossils. 2 vols. Washington, 1915. *U. S. Nat. Mus., Bull.* 92.
- 2041a RAYMOND, P. E. The Chazy formation and its fauna. *Carnegie Mus. Pittsburgh, Ann.* 3, 1905-06: 578-596. (83 entries. 1770-1905. Regional.)
- 2042 RAYMOND, P. E. Expedition to the Baltic provinces of Russia and Scandinavia. Part I. The correlation of the Ordovician strata of the Baltic basin with those of eastern North America. Harvard Univ., Mus. Comp.

- Zool. Bull. 56. no. 3. Geol. ser. 10, no. 2, 1916: 280-286. (121 entries. 1825-1915. Regional.)
See 1334, 1441, 1654, 1906, 2129, 2130, 2529, 2557, 2825.
- ORE DEPOSITS.**
- 2043 BECK, RICHARD. The nature of ore deposits; translated by W. H. Weed. 2 vols. N. Y., 1905. (Many bibliographic footnotes.)
- 2044 BEYSCHLAG, F., KRUSCH, P., and VOGT, J. H. L. Die Lagerstätten der nutzbaren Mineralien und Gesteine nach Form, Inhalt und Entstehung. Band 1, 2. Stuttgart, 1910-13. (Literature through text. General.)
- 2045 BEYSCHLAG, F., VOGT, J. H. L., and KRUSCH, P. The deposits of the useful minerals and rocks their origin, form, and content; translated by S. J. Truscott. 2 vols. London, 1914-16. (Literature through text. General.)
- 2046 EMMONS, S. F. Theories of ore deposition historically considered. Geol. Soc. Am., Bull. 15, 1904: 1-28. (Bibl., 6, 28. 22 entries. 1703-1903. General. References through the text. Also published in Eng. and Min. Journ., 77, 1904: 117-119, 157-159, 199-200, 237-238. New Zealand mines record, 7, 1904: 384-387, 426-429. Sci. Am. Suppl., 60, 1905: 25046-25047. Smith. Inst., Ann. Rept. 1904: 309-336.)
- 2047 EMMONS, W. H. The enrichment of ore deposits. Washington, 1917, 530 pp. U. S. Geol. Surv., Bull. 625. (Bibl., 20-33. 321 entries. 1858-1915. General.)
- 2048 HENNING, C. L. Die Erzlagerstätten der Vereinigten Staaten von Nordamerika mit Einschluss von Alaska, Cuba, Portorico und den Philippinen nach Geschichte, Form, Inhalt und Entstehung. Stuttgart, 1911, 293 pp. (Literature through text. General.)
- 2049 IRVING, J. D., and others. A selected list of the more important contributions to the investigation of the origin of metalliferous ore-deposits. In Emmons, S. F. Ore deposits. N. Y. 1913: 837-928. (1436 entries. 1828-1912. General.)
- 2050 KEMP, J. F. The ore deposits of the United States and Canada. 3d ed. N. Y., 1900, 481 pp. (Many bibliographical footnotes.)
- 2050a *KRUSCH, J. P. Die Untersuchung und Bewertung von Erz-lagerstätten. Stuttgart, 1907, 517 pp. (Bibliographies interspersed.)
- 2051 LINDGREN, WALDEMAR. Mineral deposits. 2d ed. N. Y., 1919, 957 pp. (Many bibliographical footnotes.)
- 2052 [RAYMOND, R. W.] Papers in the Transactions of the American Institute of Mining Engineers, bearing directly or indirectly upon the science of ore-deposits. In Posepny, Franz. The genesis of ore-deposits. 2d ed. 1902: 782-789. (188 entries. 1871-1904. General.)
- 2053 STELZNER, A. W. Die Erz-lagerstätten . . . bearbeitet von Alfred Bergeat. I-II Hälfte. Leipzig, 1904-06. (Literature, I: 6-8. 77 entries. 1791-1903. General. Other references through text.)
- 2054 TOLMAN, C. F., jr. Secondary sulphide enrichment of ores—III. Min. and Sci. Press, 106, 1913: 180-181. (62 entries. 1892-1912. General.)
- 2055 WALLACE, J. P. A study of ore deposits for the practical miner. N. Y., 1908, 349 pp. (Literature, 341-343. 71 entries. n. d. General.)
See 280a, 281, 286, 362, 363, 774, 775, 787, 793, 794, 795, 797, 891, 1104a, 1405, 1481, 1592, 1811, 1843, 1866, 2023, 2156, 2267, 2268, 2339, 2342, 2376, 2377, 2392, 2447, 2476, 2499, 2644, 2509, 2613, 2651, 2669, 2857.
- OREGON.**
- 2056 HARRISON, and EATON, [ARTHUR?] Bibliography of the geologic publications pertaining to the petroleum investigation. Oregon Bur. Mines. Min. res. 3, no. 1, 1920: 38-40. (37 entries. 1848-1919. Regional.)
- 2056a HENDERSON, C. W., and WINSTANLEY, J. B. Bibliography of the geology, paleontology, mineralogy, petrology, and mineral resources of Oregon, with subject index by Graham J. Michael. Oregon Univ., Bull. n. s. 10, no. 4, 1912: 49. (332 entries. 1856?-1911. Regional.)
- 2057 HORNOR, R. R. Notes on the black sand deposits of southern Oregon and northern California.

*Not seen.

- Washington, 1918, 42 pp. U. S. Bur. Mines, Tech. Paper 196. (Bibl., 38-39. 37 entries. 1894-1917. Regional.)
- 2058 MERRIAM, J. C., and SINCLAIR, W. J. Tertiary faunas of the John Day region. Cal. Univ., Dept. Geol., Bull. 5, 1907: 199-205. (98 entries. 1867-1907. Regional.)
- 2058a SMITH, W. D. The salient features of the geology of Oregon. Journ. Geol., 27, 1919: 117-120. Oregon Univ. Bull. 16, no. 7. (61 entries. 1871-1917. Regional.)
- 2059 U. S. GEOLOGICAL SURVEY. Survey publications on gold, silver, copper, lead, and zinc in Oregon. *Its Min. Res.*, 1913-I, 1914: 522. (9 entries. 1900-14. Regional.)
- See 309, 2158a, 2773.

ORISKANY. See 2833.

OSTRACODA.

- 2060 FRANKE, A. Die Foraminiferen und Ostacoden des Emschers, besonders von Obereving und Derne nördlich Dortmund. Deutsch. geol. Gesell., Zeits. 66, 1914: 428-429. (18 entries. 1840-1912. Regional.)
- 2060a *KUIPER, W. N. Oligocäne und miocäne ostracoden aus den Niederlanden. Groningen, 1918, 91 pp. (Literatur: 86-89.)
- 2061 LIENENKLAUS, E. Die Ostrakoden des Mainzer Tertiärbeckens. Senckenb. naturf. Gesell., Ber. 1905-II: 61-62. (27 entries. 1785-1900. General.)
- 2062 NAMIAS, I. Ostracodi fossili della Farnesina e Monte Mario presso Roma. *Palaeont. ital.*, 6, 1900: 79-80. (29 entries. 1850-99. General.)
- See 1143, 2872.

OVERTHRUSTS.

- 2063 WILLIS, BAILEY. Überschiebungen in den Vereinigten Staaten von Nordamerika. Int. Geol. Cong., IX. Vienna, 1903. C. R.: 539-540. (22 entries. 1843-94. Regional.)
- See 2413, 2551, 2909.

PACIFIC ISLANDS.

- 2064 DALY, R. A. Petrography of the Pacific Islands. Geol. Soc. Am., Bull. 27, 1916: 341-342. (58 entries. 1877-1915. Regional.)
- See 1514.

PACIFIC OCEAN. See 1514.

PALEOBOTANY.

- 2065 ARBER, E. A. N. Bibliography of literature on Paleozoic fossil plants . . . 1870-1905. *Progressus Rei Botanicae* I. 1906: 218-242. (385 entries. 1870-1905. General.)
- 2066 BERRY, E. W. Recent contributions to our knowledge of Paleozoic seed-plants. *Torreyia*, 4, no. 12, 1904: 185-187. (14 entries. 1881-1904. Footnotes.)
- 2067 JONGMANS, W. J. *Palaeobotanik. Die Kultur der Gegenwart.* 3 teil, 4 abt. 4 bd. 1914: 437-438. (41 entries. 1868-1912. General.)
- 2067a [KRYSHTOFOVICH, A. Additions to the Jurassic flora of Ussuriland.] *Mus. géol. Pierre le Grand, Trav.* 2, 1916: 133-137. (61 entries. 1828-1916. General.)
- 2067b *PELOURDE, FERNAND. *Paléontologie végétale cryptogames cellulaires et cryptogames vasculaires.* Paris, 1914, 360 pp. (Index bibliographique, 323-340.)
- 2068 SEWARD, A. C. Catalogue of the Mesozoic plants in the department of geology British museum (natural history). The Jurassic flora. I.—The Yorkshire coast. London, 1900, 341 pp. (Works, 313-326. 255 entries. 1828-1900. General.)
- 2069 SEWARD, A. C. Catalogue of the Mesozoic plants in the department of geology British museum (natural history). The Jurassic flora. II.—Liassic and oolitic floras of England (excluding the inferior oolitic plants of the Yorkshire coast). London, 1904, 192 pp. (Bibl., 171-183. 258 entries. 1817-1903. General.)
- 2070 SEWARD, A. C. Fossil plants: a text-book for students of botany and geology. 4 vols. Cambridge, 1898-1919.
- Vol. 1, 1898: 415-440. 547 entries, 1751-1895.
- 2, 1910: 581-608. 638 entries, 1825-1909.
- 4, 1919: 473-521. 986 entries, 1797-1917.
- (2171 entries. 1751-1917. General.)
- 2071 STOPES, M. C. Catalogue of the Mesozoic plants in the British museum. The Cretaceous flora. Part I.—Bibliography, algae and fungi. London, 1913, 281 pp. (Literature, 1-47. 850 entries. 1822-1910. General.)

*Not seen.

- 2072 STOPES, M. C. Catalogue of the Mesozoic plants in the British museum. The Cretaceous flora. Part II.—Lower Greensand (Aptian) plants of Britain. London, 1915, 360 pp. (Works, 447–455. 360 entries. 1822–1914. General.)
- 2073 STOPES, M. C. Recent advances in paleobotany. Sci. Prog., 14, 1920: 396–398. (11 entries, 1918. General. Beginning with Vol. 11, 1916, each volume contains the above section.)
- 2074 ZEILLER, R. *Éléments de paléobotanique*. Paris, 1900, 421 pp. (Bibl., 387–404. 367 entries. 1737–1899. General.)
See 15, 19, 99, 239, 245, 333, 368, 450, 458, 622, 627, 629, 630, 632, 633, 634, 635, 657, 785a, 789, 854, 855, 856, 857, 860, 915, 917, 918, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1041, 1057, 1069, 1167, 1185, 1186, 1187, 1195, 1219b, 1279, 1286, 1335, 1423, 1425, 1427a, 1428, 1462, 1512, 1515, 1518, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1548, 1551, 1770, 1793, 1850, 1869, 1914, 2075, 2093a, 2099, 2101, 2150, 2181, 2183, 2188, 2254, 2255, 2289, 2290, 2455, 2456, 2470, 2472, 2517, 2543, 2545, 2562, 2581, 2590, 2713.
See also ALGAE; CYCADS; FOS-SIL WOOD; PALMACEAE; PHANEROGAMAE; PTERIDOPHYTA.

PALEOCLIMATOLOGY.

- 2075 GOTHAN, W. Die Frage der Klimadifferenzierung im Jura und in der Kreideformation im Lichte paläobotanischer Tatsachen. Prussia. Geol. Landesanst., 29-II, 1912: 241–242. (20 entries. 1858–1908. General.)
- 2076 GREGORY, J. W. Is the earth drying up? Glasgow Univ. Geol. Dept., Papers 1, no. 14, 1914: 308–313. Geog. Journ., 43, 1914: 308–313. (106 entries. 1767–1912. General.)
- 2077 NATHORST, A. G. Sur la valeur des flores fossiles des régions arctiques comme preuve des climate géologiques. Int. Geol. Cong., XI, Stockholm, 1910, fasc. 2. C. R. 755–756. (14 entries. 1868–1911. Regional.)
- 2078 SERNANDER, RUTGER. On the evidences of Postglacial changes of climate furnished by the peat-mosses of northern Europe. Geol. fören. Stockh. Förh., 30, 1908: 473. (8 entries. 1892–1908. General.)
See 600, 1289c, 2181, 2567, 2570.

PALEOGEOGRAPHY.

- 2079 ARLDT, THEODOR. Die Entwicklung der Kontinente und ihrer Lebewelt. Leipzig, 1907, 729 pp. (Literature, 622–631. 304 entries. 1866–1907. General.)
- 2080 ARLDT, THEODOR. Handbuch der Palaeogeographie. Band 1. Leipzig, 1919. (Many footnote references.)
- 2081 ARLDT, TH. Paläogeographische Fragen. Geol. Rundsch., 3, 1912: 93–94. (44 entries. 1886–1910. General.)
- 2082 BRANDES, THEODOR. Die faziellen Verhältnisse des Lias zwischen Harz und Egge-Gebirge mit einer Revision seiner Gliederung. Ein Beitrag zur Paläogeographie und Meereskunde der Vorzeit. N. J. f. Min., B. B. 33, 1912: 503–507. (115 entries. 1826–1910. Regional.)
- 2083 DACQUÉ, E. Paläogeographische Karten und die gegen sie zu erhebenden Einwände. Geol. Rundsch., 4, 1913: 186–189. (69 entries. 1865–1913. General.)
- 2084 OSBORN, H. F. Partial bibliography of paleogeography, 1900–1912. Geol. Soc. Am., Bull. 23, 1912: 254–256. (35 entries. 1895–1911. General.)
- 2085 SCHARFF, R. F. On an early Tertiary land connection between North and South America. Am. Nat., 43, 1909: 530–531. (31 entries. 1879–1909. General.)
- 2086 SCHARFF, R. F. On the evidences of a former land-bridge between northern Europe and North America. Roy. Irish Acad., Proc. B. 1909–10: 1–28. (62 entries. 1850–1908. General.)
- 2087 SCHUCHERT, CHARLES. Paleogeography of North America. Geol. Soc. Am., Bull. 20, 1910: 46–101. (267 entries. 1838–1909. Footnotes.)
- 2088 TÄUBER, ANTONIO. Lage und Beziehungen einiger tertiärer Vulkangebiete Mitteleuropas zu gleichzeitigen Meeren oder grossen Seen. N. J. f. Min., B. B. 36, 1913: 480–490. (232 entries. 1840–1911. Regional.)

- 2089 WENZ, WILHELM. Zur Paläogeographie des Mainzer Beckens. Geol. Rundsch., 5, 1915: 321-323. See 100, 101, 105, 185, 569, 1438, 1614a, 1884, 1886, 1887, 2420, 2526, 2539, 2796, 2906.

PALEONTOLOGY.

- 2090 ABEL, O. Paläontologie und Paläozoologie. Die Kultur der Gegenwart. 3 teil, 4 abt. 4 band, 1914: 395. (19 entries. 1834-1912. General.)
- 2091 ADAMS, C. C. Base leveling and its faunal significance, with illustrations from southeastern United States. Am. Nat., 35, 1901: 852. (12 entries. 1873-1900. General.)
- 2092 ARLDT, TH. Die Fauna der alten Tierregionen des Festlandes. N. J. f. Min., B. B. 34, 1912: 633-782. (89 entries. 1858-1911. Footnotes.)
- 2092a* DAVIES, A. M. An introduction to palaeontology. London, 1920, 414 pp. ("Short bibliography" at end of chapters i-x, "General bibliography" at end of chapter xii [p. 371-374].)
- 2093 NICHOLSON, H. A. The ancient life-history of the earth. N.Y., 1897, 407 pp. (317 entries. 1841-1897. General. Bibliographies through text.)
- 2093a SHIMER, H. W. An introduction to the study of fossils (plants and animals). New York, 1914, 450 pp. (Bibl., 403-406. 49 entries. 1880-1913. General.)
- 2094 WOODS, H. Palaeontology-invertebrate. 5th ed. Cambridge, 1919, 411 pp. (List of paleontological works: 378-392.)
- 2095 ZITTEL, K. A. VON. Grundzüge der Paläontologie (Paläozoologie) . . . Neubearb. von Ferdinand Broili . . . 2 vols. München, 1915-18. (Literature in footnotes. General.)
- 2096 ZITTEL, K. A. VON. Text-book of palaeontology . . . translated and edited by Charles R. Eastman. 2 vols. London, 1900-02. (Literature in footnotes. General.) See 72, 123, 146, 197, 246, 320, 322, 334, 357, 359, 367, 396, 416, 442, 476, 600, 628, 638, 689, 771, 804, 805, 859, 885, 890, 894, 910, 919, 1016, 1070, 1164, 1205, 1275, 1344, 1383, 1387, 1393, 1412, 1421, 1427a, 1496, 1462, 1485,

1502, 1579, 1707, 1708, 1710, 1712, 1771, 1855, 1879, 1907, 1925, 1945, 2097, 2141, 2142, 2143, 2182, 2394, 2594, 2666, 2744, 2823, 2872, 2874, 2887.

PALEOZOIC.

- 2097 REED, F. R. C. Pre-Carboniferous life-provinces. India Geol. Surv., Rec. 40, 1910: 32-35. (72 entries. 1889-1910. General.) See 146, 359, 818, 822a, 837, 872, 989.

PALESTINE.

- 2098 FUCHS, ERNST. Beiträge zur Petrographie Palästinas und der Hedschasprovinz. (Beiträge zur Paläontologie und Geologie Palästinas, III.) N. J. f. Min., B. B. 40, 1916: 533-534. (13 entries. 1859-1915. Regional.) See 398, 493.

PALLADIUM. See 2175a.

PALMACEAE.

- 2099 STENZEL, GUSTAV. Fossile Palmenhölzer. Beitr. Paläont. Oesterr.-Ung., 16, 1904: 279-281. (85 entries. 1821-95. General.)

PARIS BASIN. See 544, 1117a, 1163, 1169, 1180, 1188.

See also FRANCE.

PATAGONIA.

- 2100 DELHAES, G. Sobre la presencia del rético en la costa Patagónica. Buenos Aires, 1913, 10 pp. Argentine Rep., Dir. gen. min., Bol. 1-B. (Bibl., 9-10. 16 entries. 1862-1911. Regional.)
- 2101 HALLE, T. G. Some Mesozoic plant-bearing deposits in Patagonia and Tierra del Fuego and their floras. Upsala, 1913, 58 pp. Sven. Vetenskap. Handl., 51, no. 3. (Bibl., 51-54. 137 entries. 1824-1913. General.)
- 2102 QUENSEL, P. D. Geologisch-petrographische Studien in der patagonischen Cordillera. Upsala Univ., Bull. Geol. Inst. 11, 1912: 5-6. (48 entries. 1846-1910. Regional.)
- 2103 SCRIVENOR, J. B. Notes on the geology of Patagonia. Geol. Soc. London, Q. J. 59, 1903: 160. (15 entries. 1842-1902. Regional.)
- 2104 WICHMANN, RICARDO. Estudios geológicos e hidrogeológicos en la región comprendida entre boca del río Negro, San Antonio y Choele-Choe. Argentine Rep. Min. agri., Ann. 13, no. 3. (Bibl., 43-44. 32 entries. 1842-1911. Regional.)

*Not seen.

- 2105 WILCKENS, OTTO. Die Meeresablagerungen der Kriede- und Tertiärformation in Patagonien. N. J. f. Min., B. B. 21, 1906: 101-105. (87 entries. 1846-1905. Regional.)
- 2106 WITTE, LUTZ. Estudios geologicos de la region de San Blas (partido de Patagones). La Plata Mus., Rev. 24, 1916: 13. (7 entries. 1842-1908. Regional.)
See 213, 409, 546, 2480.
See also ARGENTINE RE-PUBLIC.
- PEAT.**
- 2107 BASTIN, E. S., and DAVIS, C. A. Peat deposits of Maine. Washington, 1909, 127 pp. U. S. Geol. Surv., Bull. 376. (Bibl., 123-124. 32 entries. 1842-1908. Select.)
- 2108 DAVIS, C. A. Peat: essays on its origin, uses and distribution in Michigan. Lansing, Mich., 1907, 395 pp. Mich. Geol. Surv., Rept. 1906, 1907. (Bibl., 173-179. 113 entries. 1802-1907. Select.)
- 2109 DAVIS, C. A. The preparation and use of peat as fuel. U. S. Geol. Surv., Bull. 442, 1910: 131-132. (26 entries. 1842-1909. Select.)
- 2110 DAVIS, C. A. The uses of peat for fuel and other purposes. Washington, 1911, 214 pp. U. S. Bur. Mines, Bull. 16. (Bibl., 204-205. 58 entries. 1853-1911. Select.)
- 2110a *FISHER, W. L. The peat exhibit, with the uses of peat and its many products. Philadelphia, 1920, 56 pp. Philadelphia museums. The Commercial museum. Handbooks to the exhibits. no. 3. (Selected bibl., 52-54.)
- 2111 FRÜH, J., and SCHRÖTER, C. Die Moore der Schweiz mit Berücksichtigung der gesamtem Moorfrage. Bern, 1904, 751 pp. Beitr. geol. Karte Schweiz. Geotech. ser. 3. (Literature, 342-343, 717-734. 303 entries. 1729-1903. General.)
- 2112 HARPER, R. M. Preliminary report on the peat deposits of Florida. Florida Geol. Surv., Ann. Rept. 3, 1909-1910: 358-366. (82 entries. 1823-1910. General and regional.)
- 2113 HINDSHAW, H. H. Peat. U. S. Geol. Surv., Min. Res. 1904, 1905: 1232-1233. (30 entries. 1835-1903. General.)
- 2114 HUELS, F. W. The peat resources of Wisconsin. Madison, Wis., 1915, 274 pp. Wis. Geol. Surv., Bull. 45. Econ. ser. 20. (Bibl., 264-266. 61 entries. 1886-1913. General.)
- 2115 LEES, J. H., comp. Bibliography of Iowa peat. Iowa Geol. Surv., Vol. 19, 1909: 731-733. (63 entries. 1868-1909. Regional.)
- 2116 McCOURT, W. E. Distribution of peat in northern New Jersey. N. J. Geol. Surv., Ann. Rept. 1905, 1906: 309-313. (140 entries. 1663-1906. General.)
- 2117 PARSONS, A. L. Peat: its formation, uses and occurrence in New York. N. Y. State Mus., Rept. State Geol. 23, 1903: 1904: 85-88. N. Y. State Mus., Ann. Rept. 57-I, 1905: 85-88. (87 entries. 1663-1903. General.)
- 2117a RIES, HEINRICH. Uses of peat and its occurrence in New York. N. Y. State Mus., Rept. State Geol. 21, 1901: r89-r90. (36 entries. 1835-1902. General.)
- 2118 SOPER, E. K. The peat deposits of Minnesota. Minneapolis, 1919, 261 pp. Minn. Geol. Surv., Bull. 16. (69 entries. 1866-1916. General.)
- 2118a *WEBER, C. A. Über die Vegetation und Entstehung des Hochmoors von Augstun in Memeldelta mit vergleichenden Ausblicken auf andere Hochmoore der Erde. Eine formationsbiologisch historische und geologische Studie. Berlin, 1912, 252 pp. (Literaturverzeichnis: 248-252.)
- 2119 ZANEN, J. P. Der heutige Stand der Moorkultur und Moorbeseidelung im Deutschen Reiche. Giessen, 1906, 92 pp. (Literature, 91-92. 29 entries. 1864-1905. Regional.)
See 731, 736, 1740a, 1819, 1903, 2544a, 2566.
- PECTINIDAE.**
- 2120 JAWORSKI, E. Beiträge zur Kenntnis der Lias-Volen Südamerikas und der Stammesgeschichte der Gattung Vola. Palaont. Zeit., 1, 1914: 318-319. (43 entries. 1812-1908. General.)
- 2121 KNIKER, H. T. Comanchean and Cretaceous Pectinidae of Texas. Austin, 1918, 56 pp. Texas Univ., Bull. 1817. (Bibl., 55-56. 26 entries. 1834-1911. General.)

*Not seen.

- 2122 TEPPER, WILFRIED VON, and DREGER, JULIUS. Neue Amussiopecten aus steirischen Tertiärlagerungen. Nebst einigen geologischen Daten. Austria. Geol. Reichsanst., Jahrb. 67, 1917: 500-501. (14 entries. 1870-1919. Regional.)

PEDOLOGY. See SOILS.

PEGMATITE.

- 2123 DUPARC, LOUIS, WUNDER, M., and SABOT, R. Les minéraux des pegmatites des environs d'Antsirabé a Madagascar. Soc. phys. Genève, Mém. 36, pt. 3, 1910: 285-286. (13 entries. 1906-10. Regional.)

See 2145, 2146.

PELÉE PEAK.

- 2124 *LACROIX, ALFRED. La montagne Pelée après ses éruptions. Paris, 1908, 136 pp. (Bibl., [vii]-viii.) See 2868.

PENNSYLVANIA.

- 2125 AGTHE, F. T., and DYNAN, J. L. Paint-ore deposits near Lehigh Gap, Pennsylvania. U. S. Geol. Surv., Bull. 430, 1910: 454. (5 entries. 1875-1907. Regional.)
- 2126 BASCOM, FLORENCE. The ancient volcanic rocks of South Mountain, Pennsylvania. Washington, 1896. 124 pp. U. S. Geol. Surv., (Bibl., 19. 21 entries. 1755-1896. Regional. Also given a list of papers on acid volcanics and devitrification, pp. 87-89, 63 entries, 1872-96. Papers relating to spherulites, pp. 89-91, 45 entries, 1852-95.)
- 2127 CLAPP, F. G. Economic geology of the Amity quadrangle eastern Washington county, Pennsylvania. Washington, 1907, 145 pp. U. S. Geol. Surv., Bull. 300. (Publ., 140. 23 entries. 1858-1907. Regional.)
- 2128 CLAPP, F. G. Limestones of southwestern Pennsylvania. Washington, 1905, 52 pp. U. S. Geol. Surv., Bull. 249. (Bibl., 48. 18 entries. 1895-1904. Regional.)
- 2129 FIELD, R. M. The Middle Ordovician of central and south central Pennsylvania. Am. Journ. Sci., 4th ser. 48, 1919: 428. (13 entries. 1876-1918. Regional.)
- 2130 HOPKINS, T. C. Cambro-Silurian limonite ores in Pennsylvania. Geol. Soc. Am., Bull. 11, 1900:

499-502. (23 entries. 1838-93. General.)

- 2131 MUNN, M. J. Petroleum and gas [in western Pennsylvania]. Penna. Geol. Surv., Rept. 1906-1908: 299-301. (61 entries. 1827-1904. Regional.)

- 2132 PENNSYLVANIA. TOPOGRAPHIC AND GEOLOGIC SURVEY. Publications of the United States geological survey relating to Pennsylvania. Harrisburg, Pa., 1914, 10 pp. (106 entries. 1883-1913. Regional.)

- 2133 STONE, R. W. Geologic work in Pennsylvania. Penna. Geol. Surv., Rept. 1906-08; 83-108. (157 entries. 1875-1907. Regional. Includes lists of publications by the different surveys.) See 1298, 1324, 1325, 1860, 2920.

PERIDOTITES.

- 2134 FINLAYSON, A. M. The nephrite and magnesian rocks of the South Island of New Zealand. Geol. Soc. London, Q. J. 65, 1909: 378. (28 entries. 1822-1908. Regional.) See 845, 2145.

PERMIAN. See 322, 414, 459, 494, 634, 663, 773, 776, 937, 985, 1950, 1141, 1280, 1334, 1412, 1418, 1423, 1424, 1425, 1662a, 1869, 2233, 2252, 2294, 2460, 2598, 2732a, 2804, 2901.

PERMO-CARBONIFEROUS. See 1141, 2707.

PERSIA.

- 2135 PILGRIM, G. E. The geology of the Persian Gulf and the adjoining portions of Persia and Arabia. India Geol. Surv., Mem. 34, pt. 4, 1908: 161-163. (41 entries. 1837-1907. Regional.)

- 2136 STAHL, A. F. Persien. Heidelberg, 1911, 46 pp. Handb. f. reg. Geol., 8 heft. (55 entries. 1853-1909. Regional.)

See 2009 b.

PERU.

- 2137 ADAMS, G. I. An outline review of the geology of Peru. Smith. Inst., Ann. Rept. 1908: 428-430. (41 entries. 1814-1907. Regional.)

- 2137a ADAMS, G. I. The physical features and mining industry of Peru. Am. Inst. M. E., Trans. 39, 1909: 258-259. (30 entries. 1903-07. Regional.)

- 2138 DUEÑAS, E. I. Fisionomía minera de las provincias de Tayacaja, Angaraes y Huancavelica. Lima, 1908, 197 pp. Peru. Ing. minas,

*Not seen.

- Bol. 62. (Bibl., 10-14. 17 entries. 1790-1908. Regional.)
- 2139 GERTH, H. Geologische und morphologische Beobachtungen in den Kordilleren Südperus. Geol. Rundsch., 6, 1915: 151-152. (44 entries. 1842-1914. Regional.)
- 2140 LISSON, C. I. Contribucion a la geologia de Lima y sus alrededores. Lima, 1907, 124 pp. (Works, 5-9. 108 entries. 1845-1907. Regional.)
- 2141 LISSON, C. I. Edad de los fósiles Peruanos. Pan-Am. Sci. Cong., Wash. D. C., 2d, Sect. VII, 1917: 618-621. (92 entries. 1839-1914. Regional.)
- 2142 LÜTHY, JAKOB. Beitrag zur Geologie und Paläontologie von Peru. Genève, 1918, 87 pp. Soc. paléont. suisse, Mém. 43. (Literature, 85-87. 54 entries. 1853-1915. Regional.)
- 2143 SCHLAGINTWEIT, OTTO. Die Fauna des Vracon und Cenoman in Peru. (Beiträge zur Geologie und Paläontologie von Südamerika. XVII.) N. J. f. Min., B. B. 33, 1912: 43-46. (65 entries. 1839-1910. Regional.)
- 2143a *TORRES, J. L. Guía bibliográfica; descripción de las minas y oficinas metalúrgicas en el Peru, clasificados por departamentos; compilación de estudios generales y locales, informes de mineralogía, geología, explotación de minas, metalurgia, topografía, geodesia, legislación, etc., insertos en las obras y publicaciones de la biblioteca, de la Escuela de ingenieros de Lima. 3 ed. Lima, 1914, 97 pp.
See 475, 476, 850a, 851, 2476, 2792.
- PETROLEUM.** See OIL AND GAS.
- PETROLOGY.**
- 2144 *FLEURY, ERNEST. Le Siderolithique suisse. Contribution à la connaissance des phénomènes d'alération superficielle des sédiments. Soc. Fribourg. Sc. Nat., Géographie et Géologie, Mém. VI. 1909: 237-258.
- 2144a HOLMES, ARTHUR. The nomenclature of petrology with references to selected literature. London, 1920, 284pp. (References through text.)
- 2144b LOEWINSON-LESSING, F. Lexique pétrographique. Int. Geol. Cong. Rept. 8, 1901: 1007-1009. (38 entries. 1813-98. General.)
- 2144c PIRSSON, L. V. The rise of petrology as a science. Am. Journ. Sci., 4th ser. 46, 1918: 238-239. (45 entries. 1858-1915. General.)
- 2145 ROSENBUSCH, H. Mikroskopische physiographie der mineralien und gesteine. Bd. 2. Stuttgart, 1907-1908, pp. 1-1592. (Literature, 8, 486, 716. 10,782 entries. 1838-1908. General. Many bibliographies through text.)
- 2146 SIMMERSBACH, BRUNO. Der magmatische Ursprung einzelner Pegmatite und gewisser Quarzgänge. Geol. Rundsch., 10, 1919: 158-159. (48 entries. 1859-1916. General.)
- 2147 STARK, M. Petrographische Provinzen. Fortsch. Min. Krist. Petrogr., 4, 1914: 312-336. (533 entries. 1876-1914. General.)
- 2148 WÜLFING, E. A. Fortschritte auf dem Gebiete der Instrumentenkunde. Fortsch. Min. Krist. Petrogr., 3, 1913: 64-72. (209 entries. 1896-1912. General.)
- 2149 ZIRKEL, FERDINAND. Works of reference on petrology and mineralogy. Congress of arts and science, Universal exposition, St. Louis, 1904. 4, 1906: 760-761. (36 entries. 1861-1904. General.)
See 436, 1100, 1747, 1753, 1870, 2236, 2242, 2246, 2250, 2271, 2278, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2336, 2371, 2389, 2390, 2417, 2440, 2441, 2548, 2578, 2579, 2588, 2634, 2878.
See also Regions e. g. ALSACE-LORRAINE, etc.
- PHANEROGAMAE.**
- 2150 ARBER, E. A. N. On *Psygmyphyllum majus* sp. nov. from the Lower Carboniferous rocks of Newfoundland, together with a revision of the genus and remarks on its affinities. Linnean Soc. London, Trans. 2d ser. Botany, 7, pt. 18, 1912: 405-406. (31 entries. 1844-1911. General.)
See 2517.
- PHILIPPINE ISLANDS.**
- 2151 BECKER, G. F. Report on the geology of the Philippine Islands. U. S. Geol. Surv., Ann. Rept. 21-III, 1899-1900, 1901: 594-605. (101 entries. 1574-1899. Regional. Also published in U. S. War Dept. Annual reports, 1908, vol. 8, pt. 2: 513-519.

*Not seen.

- 2152 SMITH, W. D. The Philippine Islands. Heidelberg, 1910, 24 pp. Handb. reg. Geol., 3 heft. (Literature, 20-23. 90 entries. 1841-1909. Regional.)
See 737, 962, 2048.

PHOLADOMYIDAE.

- 2153 REGINECK, HANS. Die pelomorphe Deformation bei den jurassischen Pholadomyen . . . Soc. paléont. suisse, Mém. 42, no. 3, 1917: 66-67. (39 entries. 1818-1913. General.)

PHONOLITE.

- 2154 ZÄNTINI, WILLY. Der Noseanphonolith des Schellkopfs bei Brenk und die anstehenden Noseanphonolithe überhaupt mit besonderer Berücksichtigung ihres geologischen Auftretens und ihrer Einschlüsse. N. J. f. Min., B. B. 38, 1915: 641-642. (13 entries. 1864-1914. Regional.)
See 469, 2145.

PHOSPHATES.

- 2155 *ADAMS, F. D., and DICK, W. J. Discovery of phosphate of lime in the Rocky Mountains. Ottawa, 1915, 36 pp. Canada Comm. Con. (References on western phosphate deposits: 31.)
- 2155a BRANNER, J. C., and NEWSOM, J. F. The phosphate rocks of Arkansas. Ark. Agri. Exp. Sta., Bull. 74, 1902: 122-123. (15 entries. 1888-1901. Regional.)
- 2156 GREGORY, J. W. The geology of phosphates and their bearing on the conservation of mineral resources. Geol. Soc. Glasgow, Trans. 16, 1916-17: 159-163M, Glasgow Univ., Geol. Dept., Papers 4, no. 1, 1917: 159-163. (64 entries. 1829-1916. General.)
- 2157 MANSFIELD, G. R. The phosphate resources of the United States. Pan-Am. Sci. Cong., Washington. Proc. 2d. Sect. VII, 1917: 764-766. (57 entries. 1868-1917. Regional.)
- 2158 MATSON, G. C. The phosphate deposits of Florida. Washington, 1915, 101 pp. U. S. Geol. Surv., Bull. 604. (Bibl., 95-98. 83 entries. 1885-1913. Regional.)
- 2158a PARDEE, J. T., and HEWETT, D. F. Geology and mineral resources of the Sumpter quadrangle, Oregon. Oregon Bur. Min. Min. res. 1, no. 6, 1914: 13. (9 entries. 1900-12. Regional.)

*Not seen.

- 2159 PHALEN, W. C. The conservation of phosphate rock in the United States. Pan-Am. Sci. Cong., Washington. Proc. 2d. Sect. VII, 1917: 806-808. (76 entries. 1869-1917. Regional.)

- 2160 PHALEN, W. C. Report on the phosphate rocks of central Kentucky. Frankfort, Ky., 1915, 80 pp. Ky. Geol. Surv. (Bibl., 78-80. 85 entries. 1882-1916. General.)

- 2160a *SAMOILOV, I. V. Les gisements de phosphate de chaux de l'Algérie et de la Tunisie. Moskva, 1912, 54 pp. Trudy komissii moskovskago selskokhoziaistvennago instituta po izsledovaniiu fosforitov. Seria 1. (Literature, 51-54.)

- 2161 SELLARDS, E. H. Origin of the hard rock phosphates of Florida. Florida Geol. Surv., Ann. Rept. 5, 1913: 67-80. (65 entries. 1868-1912. Regional.)

- 2162 SPENCE, H. S. Phosphate in Canada. Ottawa, 1920, 156 pp. Canada Dept. Mines. Mines Br. No. 396. (Bibl., 39-40, 143-146. 94 entries. 1852-1918. General and Regional.)

- 2162a TEALL, J. J. H. The natural history of phosphatic deposits. Geol. Assoc., Proc. 16, 1900: 386-387. (45 entries. 1875-98. General.)

- 2163 THEVENIN, ARMAND. Étude géologique de la bordure sud-ouest du Massif central. Appendice: Bibliographie des phosphorites du Quercy. France. Serv. carte géol., Bull. 94, tome 14 (1902-03): 190-196. (107 entries. 1871-1902. Regional.)

- 2164 TIETZE, O. Die Phosphatlagertstätten von Algier und Tunis. Zeit. f. prak. Geol., 1907: 229-230. (18 entries. 1888-1904. Regional.)

- 2165 U. S. GEOLOGICAL SURVEY. Survey publications relating to phosphates. Its Min. Res. 1915-II, 1917: 243-244. (41 entries. 1883-1914. Regional.)

- 2166 WOODWARD, H. P. The phosphatic deposits of western Australia. W. Austral. Geol. Surv., Bull. 74, 1917: 25-26. (15 entries. 1904-10. Regional.)

See 1740a, 1934.

PHYSICAL CONSTANTS.

- 2167 DOUGLAS, J. A. On changes of physical constants which take place in certain minerals and

igneous rocks, on the passage from the crystalline to the glassy state; with a short note on eutectic mixtures. *Geol. Soc. London, Q. J.* 63, 1907: 160-161. (12 entries. 1847-1906. General.)

See 2173.

PHYSICAL GEOGRAPHY.

2168 DAVIS, W. M. Baselevel, grade and peneplain. *Journ. Geol.*, 10, 1902: 109-111. (47 entries. 1857-1901. General.)

2169 SUSS, EDUARD. Das Antlitz der Erde. 3 vols. in 4. Prag. 1885-1909. (Bibliographical references in footnotes. General. Namens- und Sachregister . . . bearbeitet von Lukas Waagen. Wien, 1909, 158 pp.)

2169a *SUSS, EDUARD. La face de la terre (Das Antlitz der Erde) . . . Tr . . . sous la direction de Emm. de Margerie. 2 vols, Paris. 1897-1900.

2170 SUSS, EDUARD. The face of the earth (Das Antlitz der Erde) . . . Tr. by Hertha B. C. Sollas. 4 vols. Oxford, 1904-09. (Bibliographical references in footnotes. General.)

PHYSIOGRAPHY.

2171 GREGORY, H. E. A century of geology: Steps of progress in the interpretation of land forms. *Am. Journ. Sci.*, 4th ser. 46, 1918: 130-132. (73 entries. 1819-1916. General.)

See 206, 279, 395, 625, 693, 1087, 1127, 1161, 1182, 1183, 1208, 1271, 1409, 1477, 1517, 1521, 1583, 1820, 1876, 1908, 1909, 1911, 1956, 1957, 1959, 1968, 1982, 1999, 2137a, 2139, 2198, 2200, 2207, 2209a, 2209b, 2219, 2239, 2312, 2315, 2336a, 2409, 2496, 2506a, 2509a, 2555, 2567, 2578a, 2600, 2639, 2659, 2660, 2661, 2662, 2663, 2671, 2789, 2790, 2795, 2830, 2832, 2875, 2894, 2897, 2914.

See also KARST. SHORE LINES.

PINITIZATION. See 1693.

PITCHBLLENDE. See 891.

PLACENTICERAS.

2172 SMITH, J. P. The development and phylogeny of Placenticerias. San Francisco, 1900, 181-238. *Cal. Acad. Sci., Proc.* 3d ser. 1, no. 7. (Bibl., 230-231. 45 entries. 1852-98. General.)

PLACER MINING. See 124, 569, 590.

PLASTICITY.

2173 MILCH, L. Über Plastizität der Mineralien und Gesteine. *Geol. Rundsch.*, 2, 1911: 145-147. (54 entries. 1874-1910. General.)

PLATINUM.

2174 *DUPARC, LOUIS. Les gisements platinifères de l'Oural. Genève, 1903, 40 pp. Extrait des *Arch. sci. phys. nat.*, (4) 15, 1903. (Liste bibl., 38-40.)

2174a DUPARC, LOUIS, and TIKONOWITCH, M. N. Le platine et les gîtes platinifères de l'Oural et du monde. Genève, 1920, 542 pp. (Bibl., [I]-VI. 123 entries. 1826-1917. General.)

2175 HOWE, J. L., and HOLTZ, H. C. Bibliography of the metals of the platinum group, platinum, palladium, iridium, rhodium, osmium, ruthenium 1748-1917. Washington, 1919, 558 pp. *U. S. Geol. Surv., Bull.* 694. (ca 5800 entries. 1748-1917. General.)

2175a *HUSSAK, EUGEN. O palladio e a platina no Brasil. *Annae da Escola de minas de Ouro Preto*, 8, 1906: 77-188. (Palladio, litteratura: 86-87; Platina, litteratura: 143-144.)

2176 KEMP, J. F. The geological relations and distribution of platinum and associated metals. Washington, 1902, 95 pp. *U. S. Geol. Surv., Bull.* 193. (Papers, 36. 8 entries. 1826-97. General.)

2177 LUMB, A. D. The platinum metals. *Imp. Inst. Mon.*, The platinum metals, 1920: 60-63. (90 entries. 1903-20. Regional.)

See 1740a, 2057.

PLEISTOCENE.

2178 FAIRCHILD, H. L. Post-Glacial uplift of northeastern America, *Geol. Soc. Am., Bull.* 29, 1918: 229-234. (85 entries. 1863-1917. Regional.)

2179 GAGEL, C. Probleme der Diluvialgeologie. In Wilhelm Branca zum Siebsigsten Geburtstage . . . 1914: 160-163. (64 entries. 1890-1914. Regional.)

2180 LEVERETT, FRANK, and TAYLOR, F. B. The Pleistocene of Indiana and Michigan and the history of the Great Lakes. Washington, 1915, 529 pp. *U. S. Geol. Surv., Mon.* 53. (Bibl., 33-54. 420 entries. 1817-1913. Regional.)

2181 NATHORST, A. G. Neuere Erfahrungen von Vorkommen fossiler Glacialpflanzen und einige darauf besonders für Mitteldeutschland

*Not seen.

- basierte Schlussfolgerungen. Geol. Fören. Stockh. Förh. 36, 1914: 305-307. (40 entries. 1846-1914. General.)
- 2182 OSBORN, H. F. Review of the Pleistocene of Europe, Asia and northern Africa. N. Y. Acad. Sci., Ann. 26, 1915: 215-315. (114 entries. 1862-1914. Footnotes.)
- 2183 STOLLER, J. Über die Zeit des Aussterbens der *Brasenia purpurea* Michx. in Europa, speziell Mitteleuropa. Prussia. Geol. Landesanst., 29-I, 1909: 91-93. (53 entries. 1855-1906. Regional.)
See 246, 455, 675, 939, 1017, 1018, 1101, 1139, 1140, 1182, 1184, 1286, 1289, 1471, 1604, 1617, 1618, 1619, 1620, 1621, 1631, 1667, 1777, 1786, 1884, 1885, 1887, 1911, 1912, 1943, 2027, 2093, 2237, 2238, 2487, 2526, 2538, 2543, 2545, 2814.
See also GLACIAL DEPOSITS, MAN, PREHISTORIC.
- PLESIOSAURIA.**
- 2184 LINDER, HERMANN. Beiträge zur Kenntnis der Plesiosaurier-Gattungen *Peloneustes* und *Pliosaurus*. Geol. u. paläont. Abh., n. f. 11, hft. 5, 1913: 71. (41 entries. 1858-1911. General.)
- 2185 RIABININ, A. Zwei Plesiosaurier aus den jura- und kreideablagerungen Russlands. St. Petersburg, 1909, 49 pp. Russia. Com. géol., Mém. n. s. 43. (Literature, 35-36. 18 entries. 1864-1907. General. Text in Russian and German.)
- 2186 WILLISTON, S. W. North American Plesiosaurs. Part I. Field Columbian Mus., Publ. 73. Geol. ser. 2, no. 1, 1903: 6-12. (50 entries. 1821-1902. Select.)
- PLIOCENE.**
- 2187 GIGNOUX, MAURICE. Les formations marines pliocènes et quaternaires de l'Italie du sud et de la Sicile. Lyon, 1913, 693 pp. Lyon, Univ., Ann. I, 36. (Bibl., 667-686. 246 entries. 1868-1912. Regional.)
- 2188 REID, CLEMENT, and ELEANOR, M. The Pliocene floras of the Dutch-Prussian border. Mededeel. Rijksop. Delfstof., 6, 1915: 152-158. (69 entries. 1854-1914. Regional.)
- 2189 TESCH, P. Beiträge zur kenntnis der marinen mollusken im west-Europäischen pliocänbecken. 's-Gravenhage, 1912, 96 pp. Mededeel. Rijksop. Delfstof., 4. (Literature, 96. 12 entries. 1853-1911. Regional.)
See 265, 385, 597, 884, 1139, 1379, 1379a, 1471, 1612, 1667, 1780, 2093, 2252, 2338, 2386, 2587, 2814, 2816.
- PODOLIA.** See UKRAINIA.
- POLAND.**
- 2190 CRAMER, RUDOLF. Die Fauna von Golonog. Ein Beitrag zur Feststellung des Alters der Grauwackensandsteinschichten von Golonog und der entsprechenden Ablagerungen in Oberschlesien. Prussia. Geol. Landesanst., 31-II, 1913: 164-167. (74 entries. 1830-1909. Regional.)
- 2191 KORONIEWICZ, P. Der Jura von Wielun in Polen. Deutsch. geol. Gesell., Zeits. 59, 1907: Monatsb.: 205-217. (38 entries. 1813-1907. Footnotes.)
- 2192 *LEWIŃSKI, JAN. Supplément au catalogue des ouvrages et des articles concernant la géologie de la Pologne et des pays limitrophes. Pam. fizyog. 17-II, 1902: 35-62.
- 2193 MICHAEL, R. Die Geologie des oberschlesischen Steinkohlenbezirkes. Berlin, 1913, 415 pp. Prussia. Geol. Landesanst., n. f. 71. (Literature, 1-8. 44 entries. 1822-1913. Footnotes.)
- 2194 MICHAEL, R. Zur Frage der Orlauer Störung im oberschlesischen Steinkohlenbezirk. Geol. Rundsch., 3, 1912: 382-383. (38 entries. 1877-1912. Regional.)
- 2195 *MIKŁASZEWSKI, S. [Catalogue bibliographique des memoires et travaux sur la pédologie de la Pologne]. Pam. fizyog. 20, 1910: 38-48.
- 2195a POLAND. SERVICE GEOLOGIQUE. Bibliografja geologiczna Polski. Le bibliographie géologique de Pologne. Nr. 1. 1914-20. (418 entries. 1914-20. Regional.)
- 2196 REHBINDER, B. v. Argiles mediojurassiques a minerai de fer le long du coté sudouest des hateurs entre Cracovie et Wielun. St. Petersburg, 1912, 209 pp. Russia Com. géol., Mém. n. s. 74. (Literature, 203-206. 79 entries. 1805-1911. Regional.)

*Not seen.

- 2197 REHBINDER, B. v. Die mitteljurassischen eisenerzführenden Tone längs dem südwestlichen Rande des Krakau-Wieluner Zuges in Polen. Deutsch. geol. Gesell., Zeits. 65, 1913: 343-347. (80 entries. 1816-1910. Regional.)
- 2198 ROMER, E. Liste des travaux relatifs à la physiographie de la Pologne . . . Kosmos, Lwów: *1898, vol. 26, 1901: 148-170, 257-303. *1890-1900, vol. 27: 187-226, 302-334, 407-507. *1901-02, vol. 30: 19-106. 1903-05, vol. 31: 1-166. (2750 entries.)
- 2199 TORNAU, FRIEDRICH. Der Flötzberg bei Kabrze. Ein Beitrag zur Stratigraphie und Tektonik des oberschlesischen Steinkohlenbeckens. Prussia. Geol. Landesanst., 23, 1905: 409-410. (33 entries. 1802-1901. Regional.)
- 2200 *TURKOVSKIY, P. [Übersicht der geologischen und physikalisch-geographischen Literatur des centralen und südlichen Polessje.] Soc. nat. Kiev, Mém. 21, 3, 1910: 33-238.
See 217, 377, 2006a.
See also SILESIA.

POLYZOA.

- 2201 LANG, W. D. The genotypes of certain Polyzoan genera. Geol. Mag. (VI) 4. 1917: 173-174. (36 entries. 1758-1903. General.)

POMERANIA. See 1521.

PORIFERA.

- 2202 RAUFF, H. Barroisia und die Pharetronenfrage. Paläont. zeit., 1, 1914: 142-144. (54 entries. 1834-1912. General.)

PORPHYRITE.

- 2203 WONG, WEN-HAO. Contribution à l'étude de la Porphyrite quartzifère de Lessines. Louvain Univ. Inst. geol., Mém. 1, 1913: 323-325. (25 entries. 1827-1912. General.)
See 2145.

PORTO RICO.

- 2204 BERKEY, C. P. Geological reconnaissance of Porto Rico. N. Y. Acad. Sci., Ann. 26, 1915: 69-70. (26 entries. 1778-1909. Regional.)
- 2205 SEMMES, D. R. The geology of the San Juan district, Porto Rico. N. Y. Acad. Sci., Sci. Surv. P. R., 1, pt. 1, 1919: 108-110. (33 entries. 1778-1916. Regional.)
See 1607, 2048.

*Not seen.

PORTUGAL.

- 2206 CHOFFAT, PAUL. L'Infralias et le Sinémurien du Portugal. Portugal. Serv. géol., Comm. 5, 1903: 49-52. (20 entries. 1849-1901. Regional.)
- 2207 CHOFFAT, PAUL. Notice sur la carte hypsométrique du Portugal. Portugal. Serv. géol., Comm. 7, 1907-09: 61-67. (51 entries. 1706-1907. Regional.)
- 2208 CHOFFAT, PAUL. Recueil de monographies stratigraphiques sur le système crétacique du Portugal. Deuxième étude. Le crétacique supérieur au nord du Tage. Lisbonne, 1900, 287 pp. Portugal. Serv. géol. (Literature, 3-17. 45 entries. 1885-99. Regional.)
- 2209 DELGADO, J. F. N. Système silurique du Portugal: étude de stratigraphie paléontologique. Lisbonne, 1908, 245 pp. Portugal. Serv. géol. (Literature, 1-20. 22 entries. 1805-1905. Regional.)
- 2209a *FLEURY, ERNEST. Formes de désagrégation et d'usure en Portugal. Lisbonne, 1919, 146 pp. Soc. port. sci. nat., Mém. Ser. géol. no. 1. (Bibl., 132-141.)
See 6, 69, 1603, 1641.

PORTUGUESE EAST AFRICA.

- 2209b THIELE, E. O., and WILSON, R. C. Portuguese East Africa between the Zambesi River and the Sabi River. . . Geog. Journ. 45. 1915: 38-40. (36 entries. 1877-1913. Regional.)

POT HOLES.

- 2210 BARKER, E. E. Glacial pot-holes at Crown Point, New York. Journ. Geol., 21, 1913: 463-464. (36 entries. 1844-1911. General.)

POTASH.

- 2211 GALE, H. S. Potash. U. S. Geol. Surv., Min. Res. 1916-II, 1919: 73-171. (230 entries. 1848-1917. General. Special bibliographic references through the text.)
- 2212 GALE, H. S., and HICKS, W. B. Potash in 1917. U. S. Geol. Surv., Min. Res. 1917-II, 1919: 467-481. (421 entries. 1830-1918. General.)
- 2213 GREGORY, J. W. The geological factors affecting the strategy of the war and the geology of the potash salts. Geol. Soc. Glasgow, Trans. 16, 1915-1916: 32-33. (20 entries. 1852-1916. General.)
- 2214 HARBORT, E. Zur Frage der Genesis der Steinsalz- und Kalisalz-lagerstätten im Tertiär vom

Ober-Elsass und von Baden.
Zeit. f. prakt. Geol., 21, 1913:
189. (17 entries. 1891-1912.
Regional.)

- 2215 PHALEN, W. C. Potash salts.
U. S. Geol. Surv., Min. Res.
1915-II, 1917: 132-133. (56
entries. 1909-15. Regional.)
- 2216 PHALEN, W. C. Salt resources of
the United States. Washington,
1919, 284 pp. U. S. Geol. Surv.,
Bull. 669. (Bibl., 250-251. 30
entries. 1912-16. Regional.)
- 2217 RINNE, F. Die geothermischen
Metamorphosen und die Disloka-
tionen der deutschen Kalisalz-
lagerstätten. Fortschr. Min.
Krist. Petrog., 6, 1920: 129-136.
(178 entries. 1852-1918. Re-
gional.)
- 2218 WILSON, A. W. G. Potash recovery
at cement plants. Ottawa, 1919,
34 pp. Canada Dept. Mines.
Mines Br., Bull. 29. (Bibl.,
32-34. 50 entries. 1911-19.
General.)

See 1092, 1740a.

PRAIRIES.

- 2219 SHIMEK, B. The prairies. [With
bibliography.] Iowa Univ. Lab.
Nat. Hist., Bull. 6, no. 2, 1911:
169-240. (149 entries. 1818-
1911. General.)

PRE-CAMBRIAN.

- 2220 LEITH, C. K. Summaries of cur-
rent North American Pre-Cam-
brian literature. Journ. Geol., 6,
1898: 527-541, 739-753, 840-854.
Journ. Geol., 7, 1899: 190-205,
406-425, 702-708, 790-812;
Journ. Geol., 8, 1900: 433-443,
512-525; Journ. Geol., 9, 1901:
79-87, 441-458; Journ. Geol., 10,
1902: 891-913; Journ. Geol., 12,
1904: 52-62, 161-176. (Foot-
notes.)
- 2221 STEIDTMANN, EDWARD. Summaries
of Pre-Cambrian literature . . .
Journ. Geol., 23, 1915: 81-91,
183-188, 261-271, 461-476, 575-
584; 28, 1920: 558-568, 643-658,
743-751. (220 entries. 1909-19.
Footnotes.)
- 2222 VAN HISE, C. R., and LEITH, C. K.
Pre-Cambrian geology of North
America. Washington, 1909,
939 pp. U. S. Geol. Surv., Bull.
360. (Literature, 104-107. 1295
entries. 1809-1908. Regional.
Other bibliographies through the
text.)
- See 1102, 1334, 1728a, 1888, 1896,
1897, 1898, 1902, 1986, 1987, 1988,
2093, 2277, 2539, 2549, 2774.

See also ARCHEAN, CRYSTAL-
LINE SCHISTS, META-
MORPHISM.

PRECIOUS STONES.

- 2223 STERRETT, D. B. Precious stones.
U. S. Geol. Surv., Min. Res.
1906, 1907: 1251-1252. (27 en-
tries. 1867-1906. Regional.)
- 2224 WODISKA, JULIUS. A book of
precious stones. N. Y., 1910,
365 pp. Bibl., 307-342. 506
entries. 1473-1907. General.

See also GEMS.

PREHISTORIC MAN. See MAN, PRE- HISTORIC.

PRIMATES.

- 2225 GREGORY, W. K. I. On the rela-
tionship of the Eocene lemur
Notharctus to the Adapidae and
to other primates. II. On the
classification and phylogeny of
the Lemuroidea. Geol. Soc. Am.,
Bull. 24, 1915: 443-446. (51
entries. 1845-1913. General.)
- 2226 GREGORY, W. K. On the structure
and relations of *Notharctus* an
American Eocene Primate. Am.
Mus. Nat. Hist., Mem. n. s. 3.
pt. 2, 1920: 242-243. (65 entries.
1834-1918. Citations.)
- 2227 GREGORY, W. K., Studies on the
evolution of the Primates. Am.
Mus. Nat. Hist., Bull. 35, art.
19, 1916: 351-355. (87 entries.
1865-1915. General.)
- 2228 OSBORN, H. F. American Eocene
primates, and the supposed ro-
dent family Mixodectidae. Am.
Mus. Nat. Hist., Bull. 16, art.
17, 1902: 213-214. (10 entries.
1884-1901. General.)

PROJECTIONS.

- 2229 PALACHE, CHARLES. The gnomonic
projection. Am. Min., 5, 1920:
79-80. (8 entries. 1887-1919.
General.)

PROTOZOA.

- 2230 SILVESTRI, A. Fossili cretacei della
contrada Calcasacco presso Ter-
mini-Imerese (Palermo). Pal-
äont. ital., 14, 1908: 162-169:
18, 1912: 52-53.

PRUSSIA.

- 2231 BERG, GEORG. Die krystallinen
Schiefer des östlichen Riesen-
gebirges. Berlin, 1912, 188 pp.
Prussia. k. preuss. geol. Lande-
sanst., Abh., n. f. 68. (Literature,
182-184. 32 entries. 1819-1912.
Regional.)
- 2232 BEUSHAUSEN, L. Das Devon des
nördlichen Oberharzes mit be-
sonderer Berücksichtigung der
Goslar. Berlin, 1900, 383 pp.

- Prussia. Geol. Landesanst., Abh. n. f. 30. (Literature, 380-382. 1785-1900. Regional.)
- 2233 DAMMER, BRUNO. Das Rotliegende der Umgegend von Altenburg in Sachsen-Altenburg. Prussia. Geol. Landesanst., Jahrb. 24, 1907: 331-332. (18 entries. 1833-1902. Regional.)
- 2234 DEECKE, W. Geologie von Pommern. Berlin, 1907, 302 pp. (Literature, 1-6. 438 entries. 1745-1907. Regional. Bibliographies through the text.)
- 2235 ECK, H. Salzschlirf unweit Fulda. Beiträge zur Kenntniss der geognostischen Verhältnisse seiner Umgebung und seiner Heilquellen. Prussia. Geol. Landesanst., Jahrb. 22, 1904: 201-215. (160 entries. 1812-1901. Regional.)
- 2236 GACHOT, HEINRICH. Die vulkanischen Trümmergesteine von Schackau in der Rhön. Prussia. Geol. Landesanst., Jahrb. 33-II, hft. 1, 1913: 1. (13 entries. 1783-1910. Regional.)
- 2237 GAGEL, C. Die Beweise für eine Vereisung Norddeutschlands in diluvialer Zeit. Geol. Rundsch., 4, 1913: 319-325. (166 entries. 1881-1912. Regional.)
- 2238 GAGEL, C. Die letzte, grosse Phase der diluvialen Vergletscherung Norddeutschlands. Geol. Rundsch., 6, 1915: 50-53. (100 entries. 1888-1914. Regional.)
- 2239 GOEBEL, FRITZ. Die Morphologie des Ruhrgebietes. Naturh. Ver. preuss. Rheinl., Verh. 73, 1918: 213-220.
- 2240 HARBORT, E. Beiträge zur Geologie der Umgebung von Königs-lutter und zur Tektonik des Magdeburg-Halberstädter Beckene. Prussia. Geol. Landesanst., Jahrb. 34-I, hft. 2, 1913: 260-267. (138 entries. 1745-1913. Regional.)
- 2241 KAISER, ERICH. Die geologisch-mineralogische Literatur des rheinischen Schiefergebirges und der angrenzenden Gebiete für die Jahre 1887-1900. I-II Teil. Bonn, 1903-04. 131+812 pp. Naturh. Ver. preuss. Rheinl., Beilage zu Verh. 59, 1902: 60, 1903. (ca 1700 entries. 1887-1900. Regional. Contains II. Zusätze zu "Geologische und Mineralogische Litteratur der Rheinprovinz und der Provinz Westfalen . . . von H. v. Dechen und H. Rauff. 326 entries. 1581-1886. Supplement contains 158 entries, 1535-1900.)
- 2242 KALLHARDT, FRIEDRICH. Geologische Beschreibung der Umgegend von Spahl in der Rhön, mit besonderer Berücksichtigung der Eruptivgesteine. Prussia. Geol. Landesanst., Jahrb. 30-II, 1912: 225. (17 entries. 1856-1907. Regional.)
- 2243 KIRCHBERGER, MARGARETE. Der Nordwestabfall des Rheinischen Schiefergebirges zwischen der Reichsgrenze und dem Rurtalgraben. Naturh. Ver. preuss. Rheinl., Verh. 74, 1917: 97-100. (52 entries. 1903-17. Regional.)
- 2244 KIRSTE, ERNST. Die geologische Literatur des Herzogtums Sachsen-Altenburg. Mitth. Osterlande, n.f. 14, 1910: 48-97. (241 entries. 1667-1910. Regional.)
- 2245 *KREMMER, M. Die geologische Literatur über Posen. Hist. Monatsbl. Posen, 3, 1902: 108-111.
- 2246 LASPEYRES, H. Das Siebengebirge am Rhein. Naturh. Ver. preuss. Rheinl., Verh. 57, 1900: 119-591. (Bibliographic lists through the text. Regional.)
- 2247 LINSTOW, O. v. Die Tektonik der Kreide im Untergrunde von Stettin und Umgebung und die Stettiner Stahlquelle. Prussia. Geol. Landesanst., Jahrb. 34-I, hft. 1, 1913: 160-167. (117 entries. 1639-1913. Regional.)
- 2248 MORZDIOL, CARL. Über das jüngere Tertiär und das Diluvium des rechtsrheinischen Teiles des Neuwieder Beckens. Prussia. Geol. Landesanst., Jahrb. 29-I, 1909: 355-360. (84 entries. 1789-1907. Regional.)
- 2249 NIKITIN, S. Bibliotheque géologique de la Russie. 1895-1897. St. Petersburg, 1896-1901. Russia Com. géol., Suppl. to Bull. 1895, vol. 15, 517 entries; 1896, vol. 16, 577 entries; 1897, vol. 17, 684 entries. (1778 entries. 1895-1907. Regional.)
- 2250 SICHTERMANN, PAUL. Diabasgänge im Flussgebiet der unteren Lenne und Volme. Prussia. Geol. Landesanst., Jahrb. 28, 1910: 415. (21 entries. 1844-1904. Regional.)
- 2251 SONNTAG, P. Geologie von Westpreussen. Berlin, 1919, 240 pp. (468 entries. 1816-1918. Regional. Geological maps . . . pp. vii-x. Bibliographies through the text.)

*Not seen.

- 2252 TORNQUIST, A. *Geologie von Ostpreussen*. Berlin, 1910, 231 pp. (149 entries. 1855-1910. Regional. Bibliographies through the text.)

See 70, 994, 995, 1143, 1520, 2188.
See also WESTPHALIA.

PTERIDOPHYTA.

- 2253 CAMBIER, RENÉ, and RENIER, ARMAND. *Observations sur Cyclostigma Macconochiei* Kidston sp. et *Omphalophloios anglicus* Sternberg sp. Soc. géol. Belg., Mém. 1911-12, fasc. 2: 85-87. (56 entries. 1809-1911. General.)
- 2254 FLORIN, RUDOLF. *Eine übersicht der fossilen Salvinia-Arten mit besonderer Berücksichtigung eines Fundes von Salvinia formosa* Heer im Tertiär Japans. Upsala Univ., Bull. Geol. Inst. 16, 1919: 258-259. (43 entries. 1853-1911. Regional.)
- 2255 LUNDQUIST, G. *Fossile pflanzen der Glossopteris flora aus Brasilien*. Stochholm, 1919, 36 pp. Sven. Vetenskap. Handl., 60, no. 3. (Literature, 32-34. 87 entries. 1828-1913. General.)
- 2256 RENIER, ARMAND. *Observations sur des empreintes de Calamostachys Ludwigi* Carruthers. Soc. géol. Belg., Mém. 1911-1912, fasc. 1: 24-26. (52 entries. 1826-1911. General.)
- 2257 RENIER, ARMAND. *L'originéraméale des cicatrices ulodendroides*. Soc. géol. Belg., Mém. 2, 1910: 79-82. (87 entries. 1823-1908. General.)
- 2258 SEWARD, A. C. *On the structure and affinities of Matonia pectinata* R. Br., with notes on the geological history of the Matoniaceae. Roy. Soc. Lond., Phil. Trans. B. 191, 1899: 203-207. (89 entries. 1821-97. General.)
- 2259 SEWARD, A. C., and DALE, ELIZABETH. *On the structure and affinities of Dipteris, with notes on the geological history of the Dipteridinae*. Roy. Soc. London, Phil. Trans. B. 194, 1901: 508-511. (78 entries. 1827-1900. General.)
- PYRENEES MOUNTAINS.**
- 2260 BRESSON, A. *Études sur les formations anciennes des Hautes et Basses-Pyrénées (Haute Chaine)*. France Serv. carte géol., Bull. 93-t. 14. (1902-1903): 22-30. (154 entries. 1874-1902. Regional. Also issued as author's thesis, University of Paris, 1903.)
- 2261 CAREZ, L. *La géologie des Pyrénées françaises*. 6 fasc., Paris, 1903-1909. France. Serv. carte géol., Mém. (2430 entries. 1827-1908. Regional. Listes des travaux: fasc. 1, pp. 1-36. Fasc. 6 (supplément arrêté au 1er Avril 1908, pp. 3381-3400.)
- 2262 DALLONI, MARIUS. *Étude géologique des Pyrénées de l'Aragon*. Marseille, 1910, 444 pp. (Works, 13-15. 39 entries. 1784-1910. Regional.)
- 2263 FOURNIER, EUGÈNE. *Études sur les Pyrénées basques (Basses-Pyrénées, Navarre et Guipuzcoa)*. France. Serv. carte géol., Bull. 121-t. 18 (1907-08): 1-2. (4 entries. 1903-06. Regional.)
- 2264 KÜNNE, G., and SCHMIDT, H. *Hochturen in den zentralpyrenäen*. 1908-1910. Deutsch. u. oesterr. Alpenver., Zeit. 42, 1911: 164. (19 entries. 1888-1911. Regional.)
- 2265 LONGCHAMBON, MICHEL. *Contribution à l'étude du métamorphisme des terrains secondaires dans les Pyrénées orientales et Ariégeoises*. Paris, 1912, 68 pp. France. Serv. carte géol., Bull. 131-t. 21, 1910-11. (Bibl., 5-6. 27 entries. 1888-1910. Regional.)
- 2266 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. *Réunion extraordinaire . . . dans les Pyrénées occidentales (Luz, Gavarnie, les Eaux-Chaudes)*. Bibliographie. *Its* Bull. 4th ser. 6, 1906: 781-787.1 (67 entries. 1902-06. Regional.)
- PYRITES.**
- 2267 FALKENBERG, OTTO. *Geologisch-petrographische Beschreibung einiger süd-norwegischer Schwefelkiesvorkommen mit besonderer Berücksichtigung ihrer Genesis*. Zeit. f. prak. Geol., 22, 1914: 153-154. (40 entries. 1849-1910. Regional.)
- 2268 FINLAYSON, A. M. *The pyritic deposits of Huelva, Spain*. Pt. II. Econ. Geol., 5, 1910: 435-437. (63 entries. 1857-1907. Regional.)
- See 1740a, 2339,
- PYROMETRY.** See 722.
- PYROPHYLLITIZATION.** See 1692.
- PYROXENE.** See AUGITE.
- PYROXENITE.** See 2145.
- QUARTZ.**
- 2269 BRAUNS, R. *Einige Mitteilungen über Quarz*. N. J. f. Min., 1919: 29-49. (40 entries. 1837-1916. Footnotes.)

- 2270 GOLDSCHMIDT, V. M. Die Pyrolumineszenz des Quarzes. Kristiania, 1906, 19 pp. Christiania Vidensk. Forhandl., 1906, no. 5. (Works, 16-19. 48 entries. 1832-1905. General.)
- QUARTZ KERATOPHYRE.**
- 2271 ANGEL, FRANZ. Die Quarzkeratophyre der Blasseneckserie. (Oberrheinische Grauwackenzone.) Austria. Geol. Reichsanst., Jahrb. 68, 1918: 29. (10 entries. 1905-14. Regional.)
- QUARTZ PROPHYRITE.** See 2145.
- QUARTZ TRACHYTE AND QUARTZ PORPHYRY.** See 2145.
- QUATERNARY.**
- 2272 BJØRLYKKE, K. O. Norges kvartergeologi. Kristiania, 1913, 269 pp. Norges geol. Undersøk., 65. (Works, 228-252. 496 entries. 1829-1912. Regional.)
- 2273 BROOKS, C. E. P. The correlation of the Quaternary deposits of the British Isles with those of the continent of Europe. Smith. Inst. Ann. Rept. 1917, 1920: 367-375. (150 entries. 1877-1913. Regional.)
- 2274 SEDERHOLM, J. J. Les dépôts quaternaires de la Finland. Helsingfors, 1911, 23 pp. Finland. Comm. géol., Bull. 29. (Bibl., 23. 15 entries. 1889-1911. Regional.)
- 2275 UPHAM, WARREN. Glacial history of the New England islands, Cape Cod, and Long Island. Am. Geol., 24, 1899: 89-92. (21 entries. 1849-99. Regional.)
- See 243, 274, 600, 709, 1004, 1095, 1101, 1104, 1172, 1282, 1334, 1600, 1603, 1777, 1778, 1793, 1794, 1838, 1976, 2187, 2234, 2248, 2252, 2386, 2396, 2550, 2560, 2562, 2805, 2867a, 2889, 2900.
- QUEBEC (PROVINCE).**
- 2276 CIRKEL, FRITZ. Report on the chrome iron ore deposits in the eastern townships, province of Quebec. Ottawa, 1909, 141 pp. Canada Dept. Mines, Mines Br. 29. (Bibl., 129. 18 entries. 1852-1905. Regional.)
- 2277 COOKE, H. G. Some stratigraphic and structural features of the Pre-Cambrian of northern Quebec. Journ. Geol., 27, 1919: 71-73. (33 entries. 1870-1916. Regional.)
- 2278 O'NEILL, J. J. St. Hilaire (Beloeil) and Rougemont Mountains, Quebec. Ottawa, 1914, 108 pp. Canada Geol. Surv., Mem. 43. Geol. ser. 36. (Bibl., 93-95. 29 entries. 1863-1906. Regional.)
- 2279 QUEBEC, (PROVINCE). DEPT. OF LANDS, MINES AND FISHERIES. MINES BRANCH. Extracts from reports on the district of Ungava recently added to the province of Quebec under the name of the territory of New Quebec. Quebec, 1813, 160 pp. (Bibl., 6. 19 entries. 1877-1909. Regional.)
- 2280 TANTON, T. L. The Harricaw-Turgeon basin, northern Quebec. Ottawa, 1919, 84 pp. Canada Geol. Surv., Mem. 109. Geol. ser. 94. (Bibl., 4-5. 11 entries. 1872-1915. Regional.)
- 2281 WILSON, M. E. Geology and mineral deposits of a part of Amherst township, Quebec. Ottawa, 1919, 53 pp. Canada Geol. Surv., Mem. 113. Geol. ser. 96. (Bibl., 3. 9 entries. 1863-1916. Regional.)
- 2282 WILSON, M. E. Kewagama lake map-area Quebec. Ottawa, 1913, 139 pp. Canada Geol. Surv., Mem. 39. Geol. ser. 35. (Bibl., 8. 8 entries. 1872-1911. Regional.)
- 2283 WILSON, M. E. Timiskaming county, Quebec. Ottawa, 1918, 197 pp. Canada Geol. Surv., Mem. 103. Geol. ser. 86. (Bibl., 14-15. 33 entries. 1845-1912. Regional.)
- See 249, 698, 808, 2222, 2441.
See also ANTICOSTI ISLAND.
- QUEENSLAND.**
- 2284 BALL, L. C. The Arbovin copper mines at Cardross. On the Chillagoe mineral field, north Queensland. Brisbane, 1918, 70 pp. Queensland Geol. Surv., Publ. 261. (Literature, 6-7. 11 entries. 1891-1913. Regional.)
- 2285 BALL, L. C. The Burketown mineral field (silver-lead and zinc mines). Brisbane, 1911, 57 pp. Queensland Geol. Surv., Publ. 232. (Literature, 51-52. 10 entries. 1898-1909. Regional.)
- 2286 BALL, L. C. Silver Spur mine. Recent developments and future prospecting. Brisbane, 1918, 36 pp. Queensland Geol. Surv., Publ. 264. (Bibl., 5-6. 7 entries. 1892-1914. Regional.)
- 2287 DUNSTAN, B. Queensland mineral index and guide. Brisbane, 1913, 1014 pp. Queensland Geol. Surv., Publ. 241. (18,000 entries. Regional.)

- 2288 JENSEN, H. I. The geology of the Glass House mountains and district. Linnean Soc. N. S. W., Proc. 28, 1903: 843-844. (7 entries. 1854-1902. Footnotes.)
- 2289 SAHNI, BIRBAL. Petrified plant remains from the Queensland Mesozoic and Tertiary formations . . . Brisbane, 1920, 48 pp. Queensland Geol. Surv., Publ. 267. (Bibl., 37-38. 33 entries. 1886-1919. Regional.)
- 2290 WALKOM, A. B. Mesozoic floras of Queensland. Parts I-IV. Brisbane, 1915-1919. Queensland Geol. Surv., Publ.
- Pt. I. Publ. 252, 1915: 38-40. 47 entries. 1872-1914.
- Pt. I. Publ. 257, 1917: 44-46. 48 entries. 1828-1914.
- Pt. I. Publ. 259, 1917: 29-30. 29 entries. 1876-1914.
- Part II. Publ. 262, 1918-15. 16 entries. 1894-1918.
- Pt. III-IV. Publ. 263, 1919: 61-62. 46 entries. 1873-1917. (186 entries. 1828-1918. Regional.)
- See 71, 719, 807, 1431, 1590, 1641, 2898.
- QUICKSILVER.** See MERCURY.
- RADIOACTIVITY.** See 1746.
- RADIOLARIA.**
- 2291 SQUINABOL, S. Contributo alla conoscenza dei Radiolari fossili del Veneto. Padua Univ., Mem. inst. geol. 2, no. 7, 1913-14: 249-256. (105 entries. 1838-1913. Regional.)
- RARE EARTHS.**
- 2292 SCHALLER, W. T. Zirconium and rare-earth minerals. U. S. Geol. Surv., Min. Res. 1916-II, 1919: 386. Reprinted in Mineral Footnotes, 2, Mar. 1918: 13-14. (14 entries. 1908-16. General.)
- RARE METALS.**
- 2293 U. S. GEOLOGICAL SURVEY. Survey publications on rare metals. U. S. Geol. Surv., Min. Res. 1912-I, 1913: 1036-1037. (34 entries. 1891-1911. Regional.)
- RED BEDS.**
- 2294 CROSS, WHITMAN, and HOWE, ERNEST. Red beds of southwestern Colorado and their correlation. Geol. Soc. Am., Bull. 16, 1905: 496-498. (45 entries. 1874-1905. Regional.)
- REPTILES.**
- 2295 ANDREWS, C. W. A descriptive catalogue of the marine reptiles of the Oxford clay. 2 vols. London, 1910-13. (Publications, vol. 2: xvii-xix. 43 entries. 1871-1911. Regional.)
- 2296 BAUR, G., and CASE, E. C. The history of the Pelycosauria, with a description of the genus Dimetrodon, Cope. Am. Phil. Soc., Trans. n. s. 20, 1899: 54-56. (70 entries. 1838-97. General.)
- 2297 BROWN, BARNUM. The osteology of *Champsosaurus* Cope. Am. Mus. Nat. Hist., Mem. 9, pt. 1, 1905: 226. (14 entries. 1867-1903. General.)
- 2298 CASE, E. C. The morphology of the skull of the pelycosaurian genus Dimetrodon. Am. Phil. Soc., Trans. n. s. 21, pt. 1, 1905: 28. (16 entries. 1884-1903. General.)
- 2299 CASE, E. C. The osteology of the Diadectidae and their relations to the Chelydosauria. Journ. Geol., 13, 1905: 159. (14 entries. 1848-1905. General.)
- 2300 CASE, E. C. A revision of the Cotylosauria of North America. Washington, D. C., 1911, 121 pp. (References, 119-121. 71 entries. 1875-1910. General.)
- 2301 CASE, E. C. Revision of the Pelycosauria of North America. Washington, D. C., 1907, 176 pp. Carnegie Inst. Wash., Publ. 55. (Bibl., 162-166. 1857-1907. Regional.)
- 2302 GILMORE, C. W. Osteology of Baptanodon (Marsh). Carnegie Mus. Pittsburgh, Mem. 2, 1905: 127-128. (16 entries. 1874-1903. General.)
- 2303 HUENE, FRIEDRICH VON. Ueber die reptilführenden Sandsteine bei Elgin in Schottland. Centralbl. f. Min. 1913: 622-623. (39 entries. 1844-1910. Regional.)
- 2304 LEES, J. H. The skull of *Paleothinus* a Wyoming Phytosaur. Journ. Geol., 15, 1907: 150-151. (14 entries. 1861-1906. General.)
- 2305 MCGREGOR, J. H. The Phytosauria, with special reference to *Myriosuchus* and *Rhytidodon*. Am. Mus. Nat. Hist., Mem. 9, pt. 2, 1906: 97-100. (76 entries. 1842-1905. General.)
- 2306 MERRIAM, J. C. Triassic Ichthyopterygia from California and Nevada. Cal. Univ. Dept. Geol., Bull. 3, no. 4, 1902: 108. (14 entries. 1852-1902. General.)
- 2307 NOPSICA, F. Baron. Zur Kenntnis der fossilen Eidechsen. Beitr.

- Palkont. Oesterr.-Ung., 21, 1908: 34-36. (90 entries. 1828-1906. General.)
- 2308 SEITZ, A. L. L. Vergleichende Studien über den mikroskopischen Knochenbau fossiler und rezenter Reptilien und dessen Bedeutung für das Wachstum und Umbildung des Knochengewebes im allgemeinen. Halle, 1907, pp. [229]-370. Acad. Caes. Leop.-Car., Nova Acta 87, nr. 2. (65 entries. 1833-1905. General.)
- 2309 STROMER, ERNST. Rekonstruktionen des Flugsauriers Rhamphorhynchus Gemmingi H. v. M. N. J. f. Min. 1913-2: 66-68. (33 entries. 1851-1912. General.)
- 2310 WIELAND, G. R. Some observations on certain well-marked stages in the evolution of the Testudinate Humerus. Am. Journ. Sci., 4th ser. 9, 1900: 423-424. (23 entries. 1849-1900. General.)
- 2311 WIMAN, CARL. Notes on the marine Triassic reptile fauna of Spitzbergen. Cal. Univ. Dept. Geol., Bull. 10, no. 5, 1916: 73. (23 entries. 1852-1914. Regional.)
See 414, 1634.
See also CROCODILES. SAUROPODA.
- REUSS.
- 2312 *AUERBACH, H. A. Bibliotheca Ruthenea. Die Literatur zur Landeskunde und Geschichte der Fürstentümer Reuss j. u. ä. I. Nachtrag. Gesell. von Freund. Gera, Jahresb. 39-42, 1901: 145-228.
- 2313 ——— II. Nachtrag. Gesell. von Freund. Gera, Jahresb. 49-50, 1906-07: 131-215. nos. 2292-3360. 1543-1907. (Regional.)
- RHAETIC. See 1052, 1334, 1518, 2100.
- RHAETIC ALPS. See 188.
- RHEINPFALZ.
- 2314 HÄBERLE, DANIEL. Die geologische Literatur der Rheinpfalz vor 1820 und nach 1880 bis zum Jahre 1907 einschliesslich, nebst Nachträgen und Ergänzungen zu dem von A. Leppla herausgegebenen Literatur-Verzeichnis von 1820-1880 im XL-XLII Jahresbericht der Pollichia für 1884. Mitth. Pollichia, 64, 1908: 1-163. (1060 entries. 1820-1907. Regional.)
- 2315 HÄBERLE, DANIEL. Die landeskundliche Literatur der Rheinpfalz. Mitth. Pollichia: [1544-1908]. No. 24, 65, 1908: 1-243. 2026 entries. 1908-18, No. 30, 71-72, 1916-1917: 1-214; No. 31, 73-74, 1918-1919: 1-245. (ca 5000 entries. 1544-1918. Regional.)
See 2664.
- RHEINWALD ALPS. See ADULA ALPS.
- RHINELAND. See GERMANY.
- RHINOCEROS.
- 2316 OSBORN, H. F. The extinct rhinoceroses. Am. Mus. Nat. Hist. Mem. 1, pt. 3, 1898: 121-125. (129 entries. 1823-94. General.)
- 2317 OSBORN, H. F. Phylogeny of the rhinoceroses of Europe. Am. Mus. Nat. Hist., Bull. 13, art. 19, 1900: 266-267. (19 entries. 1832-1900. Regional.)
- 2318 STROMER VON REICHENBACH, ERNST Ueber Rhinoceros-reste im Museum zu Leiden. Leiden. Geol. R. Mus., Samml. 2, hft. 2, 1899: 94. (20 entries. 1828-98. General.)
- RHODE ISLAND. See 712, 1314, 1854.
- RHODESIA. See 102, 110.
- RHONE. See 1168, 1182, 1184.
- RIEBECKITE.
- 2319 PRIOR, G. T. Riebeckite in trachytic rocks from Abyssinia. Min. Mag., 12, 1900: 92. (16 entries. 1888-97. General.)
- "RIES PROBLEM."
- 2320 KRANZ, W. Beitrag zum Nördlinger Ries-Problem. Centralb. f. Min. 1920: 330-333. (62 entries. 1775-1919. Regional.)
- "RILLENSTEIN."
- 2321 SALOMON, WILHELM. Über die Entstehung von "Rillensteinen." Deutsch. geol. Gesell., Zeit. 68, 1916., Monatsb.: 21-22. (17 entries. 1891-1915. General.)
- RIO GRANDE BASIN.
- 2322 FOLLANSBEE, ROBERT, and DEAN, H. J. Water resources of the Rio Grande basin 1888-1913. . . . Washington, 1915, 725 pp. U. S. Geol. Surv., Water-Supply Paper 358. (Bibl., 11-12. 23 entries. 1891-1914. Regional.)
- RIPPLE MARKS. See 2429a.
- ROADS.
- 2323 PROUTY, W. F. Roads and road materials of Alabama. Montgomery, Ala., 1911, 135 pp. Ala. Geol. Surv., Bull. 11. (Bibl., 126-127. 52 entries. n. d. General.)

*Not seen.

ROCK ANALYSIS.

- 2324 DITTRICH, M. Fortschritte der Gesteinsanalyse. Geol. Rundsch., 1, 1910, Besprech.: 1-2. (30 entries. 1868-1910. General.)
- 2325 WASHINGTON, H. S. Manual of the chemical analysis of rocks. N. Y., 1919, 271 pp. (References, 247-248. 14 entries. 1901-17. General. Practically the same references in the earlier editions.)

ROCK CLASSIFICATIONS.

- 2326 IDDIGS, J. P. Igneous rocks: composition, texture and classification, description and occurrence. Vol. II. Ed. 1. N. Y., 1913, 685 pp. (Literature, 659-674. 977 entries. 1872-1912. General.)
- 2327 JOHANNSEN, ALBERT. A quantitative mineralogical classification of igneous rocks—revised. Journ. Geol., 28, 1920: 38-60, 158-177, 210-232. (150 entries. 1813-1917. Footnotes.)
- 2328 OSANN, A. Versuch einer chemischen classification der Eruptivgesteine. I-III. T. M. P. M., n. f. 19, 1900: 445-450; 20, 1901: 546-403; 21, 1902: 444-448. (770 entries. 1875-1902. General. References to analyses literature.)
- 2328a WASHINGTON, H. S. Chemical analyses of igneous rocks . . . 1884 to 1913 . . . Washington, 1917, 1201 pp. U. S. Geol. Surv., Prof. Paper 99. (Footnotes. Not strictly a bibl.)

ROCK CLEAVAGE.

- 2329 LEITH, C. K. Rock cleavage. Washington, 1905, 216 pp. U. S. Geol. Surv., Bull. 239. (Literature, 13-18. 39 entries. 1835-1904. Footnotes.)

ROCK STRUCTURES.

- 2330 LONGCHAMON, MICHEL. Considérations sur la formation des colonnes prismatiques dans les coulées de roches éruptives. Soc. géol. France, Bull. 4th ser. 13, 1913: 33-35. (49 entries. 1693-1913. General.)

ROCK TEXTURES.

- 2331 GEIJER, PER. On poikilitic intergrowths of quartz and alkali feldspar in volcanic rocks. Geol. Fören. Stockh. Förh. 35, 1913: 76-77. (36 entries. 1879-1912. General.)
- 2331a SEDERHOLM, J. J. On synantetic minerals and related phenomena. (reaction rims, corona minerals,

Kelyphite, Myrmekite). Helsingfors, 1916. 148 pp. Finland, Comm. geol., Bull. No. 48. (Abstracts with footnotes: 9-37, 63-113.)

See 2039.

ROMEITE.

- 2332 SCHALLER, W. T. Mineralogic notes, series 3. Washington, 1916, 164 pp. U. S. Geol. Surv., Bull. 610. (Bibl., 96. 7 entries. 1841-1913. General.)

RUDISTES.

- 2333 FRANKE, FRITZE. Zusammenstellung der bisher in Nordeuropa bekannten Rudisten. Deutsch. geol. Gesell., Zeit. 63, 1911, Monatsb.: 359-361. (34 entries. 1839-1910. General.)
- 2334 PARONA, C. F. Saggio bibliografico sulle rudiste con indici dei nomi di autore, di genere e di specie. Italy. Com. geol., Boll. 46, 1916: 1-78. (598 entries. 1672-1916. General.)

RUMANIA.

- 2335 ANASTASIU, VICTOR. Contribution a l'étude géologique de la Dobrogea (Roumanie)—Terrains secondaires. Paris, 1898, 133 pp. (Bibl., 21-25. 41 entries. 1837-98. Regional.)
- 2336 CANTUNIARI, ST. N. Masivul eruptiv Muntele Carol-Piatra Rosie (Judetul Tulcea). Rumania. Inst. geol., An. 6, 1912 (1914): 1-160. (141 entries. 1837-1913. Footnotes.)
- 2336a *DIMITRESCU, A. G. Die untere Donau zwischen Turnul-Severin und Braila. Geomorphologische Betrachtungen. Berlin, 1911, 56 pp. (Bibl., 54-56.)
- 2337 GROZESCU, H. G. Geologia reginei subcarpatice din partea de nord a districtului Bacau. Rumania. Inst. geol., An. 8, 1914 (1918): 208-209. (27 entries. 1867-1913. Regional.)
- 2338 IONESCU-ARGETOIA, I. P. Pliocenul din Oltenia. Rumania. Inst. geol., An. 8, 1914 (1918): 377-380. (75 entries. 1864-1909. Regional.)
- 2339 MOTAS, CONST. Die Tuffitzone der mittleren Dobrogea (Dobrudscha) und die Kieslagerstätte von Altan-Tepe, ein Beispiel der Epigenese. Zeit. f. prak. Geol., 21, 1913: 437-439. (84 entries. 1867-1913. Regional.)
- 2340 MURGOCI, G. Études géologiques dans la Dobrogea du nord la tectonique de l'aire cimmérienne.

*Not seen.

- Rumania. *Inst. geol.*, An. 6, 1912 (1915): 443-451. (157 entries. 1859-1915. Regional.)
- 2341 MURGOCI, G. *Tertiarul din Oltenia cu privire la sare, letrol si ape minerale*. Rumania. *Inst. geol.*, An. 1, 1908: 8-10. (141 entries. 1833-1907. Regional.)
- 2342 PÁLFY, MORITZ v. *Geologische Verhältnisse und Erzgänge der Bergbaue des siebenbürgischen Erzgebirges*. Hungary. *Geol. Anst., Mitth.* 18, 1912: 234-243. (189 entries. 1774-1910. Regional.)
- 2343 POPOVICI, V. *Étude géologique des environs de Campulung et de Sinaia (Roumanie)*. Paris, 1898, 220 pp. (Works, 5-14. 108 entries. 1780-1898. Regional.)
- 2344 PREDA, D. M. *Geologia regiunii subcarpatice din partea de sud a districtului Bacau*. Rumania. *Inst. geol.*, An. 7, 1913 (1917): 569-572. (75 entries. 1853-1915. Regional.)
- 2345 SEMPER, ERWIN. *Beiträge zur kenntnis der goldlagerstätten des siebenbürgischen erzgebirges*. Berlin, 1900, 219 pp. Prussia. *Geol. Landesanst., Abh.* n. f. 33. Literature, ii. 1860-91. (Regional.)
- 2346 STEFANESCU, SABBA. *Étude sur les terrains tertiaires de Roumanie*. Contribution a l'étude stratigraphique. Lille, 1897, 178 pp. (547 entries. 1837-96. Footnotes.)
- 2347 TANASESCU, I. *Statistique de la production minière en Roumanie*. Pétrole; gaz naturels; charbons; sel. Rumania. *Inst. géol.*, An. 5, 1911: 247-258. (284 entries. 1864-1912. Regional.)
See 208, 377, 399, 400, 667b, 877, 1369, 1515, 2377b.
See also HUNGARY.
- RUSSIA.
- 2348 ANDRUSOV, N. *Fortschritte im Studium der tertiären Ablagerungen in Russland (1897-1900)*. Litteratur-Uebersicht. *Ann. géol. et min. Russ.*, 6, III, 1903-1904: 1-46. (92 entries. 1897-1900. Footnotes.)
- 2349 ARMACHEVSKY, P. *Esquisse géologique de la ville de Kiev*. *Int. Geol. Cong.*, VII, St. Petersburg, 1897. Guide xxi: 15-16. (11 entries. 1860-96. Regional.)
- 2350 *BOGACEV, V. *Liste des travaux relatifs à la géologie du pays des Cosaques du Don, publiés dès la fin du XVIII siècle jusqu'à 1901*. Novocerkassk, 1904: 1-37.
- 2351 BOGDANOWITSCH, K. *Die eisenerz Russlands, geologischer charakter, verbreitung und vorräte der lagerstätten*. *Int. Geol. Cong.*, XI. Stockholm, 1910. Iron ore resources of world. Vol. 1, 1910: 363-543. (204 entries. 1859-1909. Footnotes.)
- 2352 BOGOSLOVSKY, N. *Allgemeine geologische karte von Russland*. Blatt 73. Elatma, Morschansk, Sapojok, Insar. St.-Petersbourg, 1906, 206 pp. Russia. *Com. géol.*, Mém. 16. (Literature, 5-17. 84 entries. 1773-1904. Regional.)
- 2353 BORISSJAK, A. *Geologische skizze des kreises Isjum*. . . St. Petersburg, 1905, 423 pp. Russia. *Com. géol.*, Mém. n. s. 3. (Literature, 2-9. 76 entries. 1787-1900. Regional.)
- 2354 FAAS, A. *Materialien zur Geologie der Tertiär-Ablagerungen im Rayon von Kriwoi Rog*. St.-Petersbourg, 1904, 139 pp. Russia. *Com. géol.*, Mém. n. s. 10. (Literature, vii-xx. 58 entries. 1787-1903. Regional.)
- 2355 GOLUBJATNIKOW, D. *Geologische Detailkarte der Halbinsel Apscheron*. Bibi-Eibat. *Geologische Übersicht und die Gewinnung des Erdöls*. St. Petersburg, 1914, 254 pp. Russia. *Com. géol.*, Mém. n. s. 106. (Literature, 4-24. 43 entries. 1827-1914. Regional. In Russian.)
- 2356 GUBKIN, J. *Geologische Forschung im Erdölgebiet von Kuban*. . . St. Petersburg, 1915, 202 pp. Russia. *Com. géol.*, Mém. n. s. 115. (Literature, 1-2. 26 entries. 1856-1913. Regional. In Russian.)
- 2357 GUBKIN, J. *Rayon Nephtjanaja-Schirwanskaja des erdölgebiets von Majkop*. St. Petersburg, 1912, 169 pp. Russia. *Com. géol.*, Mém. n. s. 78. (Literature, 5-6. 14 entries. 1865-1911. Regional.)
- 2358 KALICKIJ, K. *Das naphtagebiet von Groznyj*. St. Petersburg, 1906, 40 pp. Russia. *Com. géol.*, Mém. n. s. 24. (Literature, 2-7. 26 entries. 1865-1906. Regional.)
- 2359 KALICKIJ, K. *Neftedag (Neftjanaja Gora)*. (Transkaspien). St.

*Not seen.

- Petersbourg, 1914, 78 pp. Russia. Com. géol., Mém. n. s. 95. (Literature, 1-11. 16 entries. 1883-1911. Regional. In Russian.)
- 2360 KARAKASCH, N. J. Fortschritte im Studium der Kreide-Ablagerungen Russlands (im Jahre 1898-1902). Ann. géol. et min. Russ., 7, III, 1905 + 25-50. (51 entries. 1898-1902. Footnotes.)
- 2361 KONIOUCHEBSKY, L. Recherches géologiques sur les gisements de fer de Zigaza et de Komarovo (Oural méridional). St. Petersburg, 1906, 86 pp. Literature, 3-4. Russia. Com. géol., Mém. n. s. 21. (Literature, 3-4. 7 entries. 1762-1901. Regional.)
- 2362 KRASNOPOLSKY, A. Description géologique du district minier de Néviensk. St. Petersburg, 1906, 106 pp. Russia. Com. géol., Mém. n. s. 25. (Literature, 3-10. 45 entries. 1773-1902. Regional.)
- 2363 KRASNOPOLSKY, A. Le district d'Eletz (gouvernement d'Orel) au point de vue géologique. St. Petersburg, 1902, 88 pp. Russia. Com. géol., Mém. 18, no. 3. (Literature, 1-3. 11 entries. 1856-1900. Regional.)
- 2364 KRASNOPOLSKY, A. Geologische Skizze der Umgebungen der Hütten Werchne- und Nishne-Turinsk und des Berge Katschkanar. St. Petersburg, 1909, 49 pp. Russia. Com. géol., Mém. n. s. 52. (Literature, 5-16. 49 entries. 1786-1905. Regional.)
- 2365 KRASNOPOLSKY, A. Der östliche Teil des Bergwerkbezirks von Nishne-Tagil. St. Petersburg, 1908, 86 pp. Russia. Com. géol., Mém. n. s. 41. (Literature, 6-11. 27 entries. 1827-1905. Regional.)
- 2366 MIRONOFF, S. La région petrolifère d'Oural. . . St. Petersburg, 1915, 42 pp. Russia. Com. géol., Mém. n. s. 142. (Literature, 3-4, 7 entries. 1893-1914. Regional. In Russian.)
- 2366a NIKITIN, S. Bibliotheque géologique de la Russie. 1895-1897. St. Petersburg, 1896-1901. Russia. Com. géol., Suppl. to Bull: 1895, vol. 15, 517 entries; 1896, vol. 16, 577 entries; 1897, vol. 17, 684 entries. (1778 entries. 1895-97. Regional.)
- 2367 NIKITIN, V. Recherches géologiques dans le groupe central des domaines des usines de Verkh-Issetsk, dans les domaines Revdinsky et le territoire Mourzinsky. St. Petersburg, 1907, 311 pp. Russia. Com. géol., Mém. n. s. 22. (Literature, 17-18. 13 entries. 1830-96. Regional.)
- 2368 NIKOLAËW, D. Recherches géologiques dans le domaine minier de Kychtym. St. Petersburg, 1902, 130 pp. Russia. Com. géol., Mém. 19, no. 2. (Literature, 4-12. 21 entries. 1773-1900. Regional.)
- 2369 PEETZ, H. v. Fortschritte im Studium der Devon-Ablagerungen in Russland (1899-1900). Ann. géol. et min. Russ., 5, III, 1902: 11-24. (28 entries. 1898-1900. Regional.)
- 2370 SOKOLOW, N. Die Manganerzlager in dem tertiären Ablagerungen des Gouvernements Jekaterinoslaw. St. Petersburg, 1901, 79 pp. Russia. Com. géol., Mém. 18, no. 2. (Literature, vii. 14 entries. 1874-96. Regional.)
See 3, 12, 54, 55, 76, 83, 210, 331, 494, 505, 813, 826, 847, 855, 1118, 1513, 1519, 1524, 1525, 1530, 1531, 1616, 1641, 1790, 2042, 2174, 2174a, 2185, 2348.
See also SIBERIA. TRANS-CASPIAN.
- ST. VINCENT.
- 2371 FLETT, J. S. Petrographical notes on the products of the eruptions of May, 1902, at the Soufrière in St. Vincent. Roy. Soc. Lond., Phil. Trans., A. 208: 328-331. (72 entries. 1902-05. Regional.)
- SALT.
- 2372 ALBRECHT, THEODOR. Die "Steinhuder Meer-Linie" und ihre Umgebung. Niedersäch. geol. Ver., Jahresh. 9, 1916: 38-39. (37 entries. 1846-1913. Regional.)
- 2373 BUSCHMAN, J. O. *freiherr* von. Das Salz dessen Vorkommen und Verwertung in Sämtlichen staaten der Erde. 2 vols. Leipzig, 1906-09. (Many footnote references. General.)
- 2374 COLE, L. H. Report on the salt deposits of Canada and the salt industry. Ottawa, 1915, 152 + xxii pp. Canada Dept. Mines. Mines Br. no. 325. (Bibl., 141-152. 76 entries. 1866-1913. General.)
- 2375 DENIS, THEO. Bibliography [salt] Canada Geol. Surv., Ann. Rept.

- n. s. 15, 1902-3: 238s-239s. (19 entries. 1865-97. Regional.)
- 2376 GÖRGEY, R. Die Entwicklung der Lehre von der Salzlagerstätten. Geol. Rundsch., 2, 1911: 278-280. (43 entries. 1875-1910. General.)
- 2377 GRABAU, A. W. Geology of the non-metallic mineral deposits other than silicates. Vol. I. Principles of salt deposition. Ed. 1. N. Y., 1920, 435 pp. (Many bibliographical footnotes. General.)
- 2377a *LARBALÉTRIER, ALBERT. Le sel, les salines et les marais salants. Paris, 1901, 166 pp. (Index bibliographique, 161.)
- 2377b *MRAZEK, LUDOVIC. Aperçu géologique sur les formations salifères et les gisements de sel en Roumanie. Bucarest, 1902, 55 pp. Bibliothèque du "Moniteur des intérêts pétrolières roumains" 49, 50, et 51, janvier-juin 1902. (Liste bibliographique, p. 1.)
- 2378 PHALEN, W. C. Salt, bromine, and calcium chloride. U. S. Geol. Surv., Min. Res. 1914-II, 1916: 304-306. (43 entries. 1883-1915. Regional.)
- 2379 PHALEN, W. C. Salt resources of the United States. Washington, 1919, 284 pp. U. S. Geol. Surv., Bull. 669. (Bibl., 250-251. 183 entries. 1837-1916. Regional. Bibliographies by states through the text.)
- 2379a *ZÁRATE, J. C. Las salinas de México y la industria de la sal comun. México, 1917, 71 pp. Mexico Inst. geol., An. 2. (Bibl., 68-71.)
- 2380 ZIMMERMANN, E. Literatur über die geologie der deutschen Salzablagerungen. Prussia. Geol. Landesanst., Abh., n. f. 52, 1907: 137-183. (ca 625 entries. 1600-1907. Regional.)
See 682, 1413a, 1727, 1740a, 1903, 2347.
- SALTPETER. See NITRATES.
- SALVAGES ISLAND. See 2844.
- SAN FRANCISCO EARTHQUAKE. See 956.
- SAN SALVADOR.
- 2381 FLEURY, LUIS. Geología general de la república de el Salvador, en lo que se relaciona con la minería. Pan-Am. Sci. Cong., Wash. D. C., 2d sect. VII, 1917: 365-366. (28 entries. 1864-1913. Regional.)
- SANDS and GRAVELS.
- 2382 HOPKINS, L. L. Sand: its occurrence, properties, and uses; a bibliography. Carnegie Library of Pittsburgh, 1918, 72 pp. (ca 600 entries. 1890-1916. General.)
- 2383 STONE, R. W. Sand and gravel. U. S. Geol. Surv., Min. Res., 1912-II, 1913: 634-636. (47 entries. 1885-1912. General.)
See 2435, 2436, 2858.
See also MOLDING SANDS.
- SANDSTONE. See 2866, 2895a.
- SANDWICH ISLANDS. See 400.
- SANTA CRUZ BEDS. See 1625, 1626, 1627, 1629, 1630.
- SANTO DOMINGO. See 810.
- SARDINIA.
- 2384 CAPACCI, C. Bibliografia geologica, paleontologica, mineralogica e mineraria della Sardegna. Soc. geol. ital., Boll. 15, 1896: 783-785. (297 entries. 1527-1896. Regional.)
- 2385 DENINGER, KARL. Die mesozoischen Formationen auf Sardinien. N. J. f. Min., B. B. 23, 1907: 471-473. (55 entries. 1842-1906. Regional.)
- 2386 GIGNOUX, MAURICE. Les formations marines pliocènes et quaternaires de l'Italie du sud et de la Sicile. Lyon Univ., Ann. I. 36, 1913: 667-686. (246 entries. 1870-1912. Regional.)
See 674, 1641.
- SARSENS.
- 2387 JONES, T. R. Bibliographic list of works treating of sarsens. Geol. Mag., n. s. IV. 8, 1901: 124-125. (86 entries. 1644-1901. General.)
- SASKATCHEWAN. See 618.
- SAUROPODA.
- 2388 OSBORN, H. F., and MOOK, C. C. Camarasaurus, Amphicoelias and other Sauropods of Cope. Am. Mus. Nat. Hist., Mem. n. s. 3, pt. 3, 1921: 387. (28 entries. 1877-1918. General.)
- SAXONY (KINGDOM).
- 2389 BEGER, P. J. Beiträge zur Kenntnis der Kalkkallireihe der Lamprophyre im Gebiete des Lausitzer Granitlakkolithen. N. J. f. Min., B. B. 40, 1916: 584-586. (33 entries. 1880-1914. Regional.)
- 2389a *BEGGER, P. J. Geologischer Führer durch die Lausitz. Berlin, 1914, 319 pp. Sammlung geologischer Führer xx. (Literatur, 301-310.)

*Not seen.

- 2390 BERGT, W. Die Entwicklung der chemischen Petrographie Sachsens. *Geol. Rundsch.*, 2, 1911: 498-499. (23 entries. 1819-1910. Regional.)
- 2390a *KOSSMATT, FRANZ. Übersicht der Geologie von Sachsen; kurze Erläuterungen zu den von der Kgl. sächs. geologischen Landesuntersuchung veröffentlichten Übersichtskarten. Leipzig, 1916, 63 pp. (Bibliographical footnotes.)
- 2391 KRENKEL, E. Geologischer Führer durch nordwest-Sachsen. Berlin, 1914, 202 pp. (Literature, 183-187. 59 entries. 1874-1910. Regional.)
- 2391a LIEBSCHER, BRUNO. Das Oberlausitzer Tiefland. Görlitz, 1904, 131 pp. (ca 150 entries. 1870-1903. Regional. Footnotes.)
- 2392 MÜLLER, HERMANN. Die Erzgänge des Freiburger Bergrevieres. Leipzig, 1901, 350 pp. Saxony. *Geol. Karte, Erläut.* (Literature, 64-73. 117 entries. 1524-1896. Regional.)
- 2393 PELZ, ALFRED. Geologie des königreichs Sachsen in gemeinverständlicher Darlegung. Leipzig, 1904, 152 pp. (Bibliographies through the text. Regional.)
- 2394 WANDERER, KARL. Die wichtigsten Tiervesteinerungen aus der Kreide des königreichs Sachsen. Jena, 1909, 80 pp. (Literature, xii-xv. 54 entries. 1835-1907. Regional.)
See 746, 753, 1228.
- SAXONY (PROVINCE).** See HARZ MOUNTAINS. PRUSSIA.
- SCANDINAVIA.**
- 2395 LAUNAY, L. DE. L'origine et les caractères des gisements de fer Scandinaves. . . . *Ann. mines*, 10e sér. Mém. 4, 1903: 208-209. (18 entries. 1891-1903. Regional.)
- 2396 MOSCHELES, J. Die Postglazialzeit in Skandinavien. *Zeit. f. Gletscherk.*, 10, 1916-17: 210. (27 entries. 1877-1909. Regional.)
- 2397 S[VEDMARK], E[UGENE]. Förteckning öfver skandinavisk eller skandinaviska förhallanden rörande geologisk, mineralogisk och paleontologisk litteratur. *Geol. Fören. Stockh. Förh.*: 1899-1900, vol. 23, 185-198. 232 entries. 1901-1903, vol. 25, 432-448. 292 entries. 1904-1906, vol. 29, 49-67. 381 entries. (905 entries. 1899-1906. Regional.)
See 9, 1102, 2042, 2722.
See also DENMARK, FENNO-SCANDIA, FINLAND, LAPLAND, NORWAY, SWEDEN.
- SCAPOLITE.**
- 2398 BORGSTROM, L. H. Die skapolithlagerstätte von Laurinkari. Helsingfors, 1914, 30 pp. Finland. *Comm. géol.*, Bull. 41. (Literature, [2]. 11 entries. 1737-1912. Regional.)
- 2399 PREISWERK, H. Über neue Skapolithfunde in den Schweizeralpen. *Naturf. Gesell. Basel, Verh.* 28, 1917: 189-190. (25 entries. 1823-1916. General.)
- 2400 SALOMON, WILHELM. Über die contactmineralien der Adamellogruppe. *T. M. P. M.*, n. f. 15, 1896: 168-170. (36 entries. 1792-1890. General. A bibliography of literature on Dipyre.)
- SCHLESWIG-HOLSTEIN.**
- 2401 GAGEL, C. Fortschritte in der geologischen Erforschung Schleswig-Holsteins. *Geol. Rundsch.*, 2, 1911: 410-412. (46 entries. 1888-1911. Regional.)
- 2402 GAGEL, C. Neuere Fortschritte in der geologischen Erforschung Schleswig-Holsteins. *Naturw. Ver. Schles.-Holstein, Schr.* 15, 1913: 223-225. (45 entries. 1900-11. Regional.)
- 2403 HEIN, CHR. Die Literatur zur Geologie Schleswig-Holsteins seit 1888. *Naturw. Ver. Schles.-Holstein, Schr.* 15, 1911: 1-19. (216 entries. 1888-1910. Regional.)
- 2404 MADSEN, VICTOR. Istidens Foraminiferer i Danmark og Holsten. . . . *Dansk geol. foren., Meddel.* 2, 1895: 66-67. (26 entries. 1835-88. Footnotes.)
- 2405 ZEISE, O. Geologisches vom Kaiser-Wilhelm-Canal. Prussia. *Geol. Landesanst., Jahrb.* 23, 1902: 153-154. (12 entries 1890-96. Regional.)
See DENMARK, GERMANY.
- SCHNEEBERGITE.**
- 2406 SCHALLER, W. T. Mineralogie notes, series 3. Washington, 1916, 164 pp. *U. S. Geol. Surv.*, Bull. 610. (Bibl., 85. 5 entries. 1880-1902. General.)
- SCHWARZWALD.** See 391, 394, 2852.
See also BADEN.

*Not seen.

SCOTLAND.

- 2407 BAILEY, E. B. The Loch Awe syncline (Argyllshire). Geol. Soc. London, Q. J. 69, 1913: 298-299. (21 entries. 1819-1912. Regional.)
- 2408 BAILEY, E. B. Recumbent folds in the schists of the Scottish Highlands. Geol. Soc. London, Q. J. 66, 1910: 617-618. (36 entries. 1861-1910. Regional.)
- 2408a *BAILEY, E. B., and others. The geology of Ben Nevis and Glen Coe and the surrounding country. Edinburgh, 1916, 247 pp. Scotland. Geol. Surv., Mem. 53. (Bibl., 235-239.)
- 2408b *BARROW, GEORGE, and others. The geology of the country round Blair Atholl, Pitlochry, and Aberfeldy. Glasgow, 1905, 161 pp. Scotland. Geol. Surv., Mem. (List of publications. . . . 152-156.)
- 2408c *BARROW, GEORGE, and others. The geology of the districts of Braemar, Ballater and Glen Clova. Edinburgh, 1912, 138 pp. Scotland. Geol. Surv., Mem. 65. (Bibl. . . . 132-133.)
- 2408d *BARROW, GEORGE, and others. The geology of upper Strathspey, Gaick and the forest of Atholl. Edinburgh, 1913, 116 pp. Scotland. Geol. Surv., Mem. 64. (Bibl., 111-112.)
- 2408e *BLACK, G. F. A list of works on Scotland. New York, 1916, 1233 pp. Reprinted from New York Public Library, vol. 18, 1914.
- 2409 BREMNER, ALEXANDER. The physical geology of the Dee Valley. Aberdeen, 1912, 89 pp. (Bibl., 85-86. 36 entries. 1874-1902. Regional.)
- 2410 CAMPBELL, ROBERT. The geology of south-eastern Kincardineshire. Roy. Soc. Edinb., Trans. 48, pt. 4, 1913: 959-960. (26 entries. 1811-1912. Regional.)
- 2410a *CLOUGH, C. T. The geology of west-central Skye, with Soay. (The description of Soay and Soay Sound); and Alfred Harker . . . (The description of the mainland of Skye). Glasgow, 1904, 59 pp. Scotland. Geol. Surv., Mem. (Bibl., 51-56.)
- 2411 CRAMPTON, C. B., and CARRUTHERS, R. G. The geology of Caithness. . . . Edinburgh, 1914, 194 pp. Scotland Geol. Surv., Mem. (Bibl., 180-186. 134 entries. 1771-1912. Regional.)
- 2411a *CUNNINGHAM-CRAIG, E. H., and others. The geology of Colonsay and Oronsay, with part of the Ross of Mull. Edinburgh, 1911, 109 pp. Scotland. Geol. Surv., Mem. (Bibl., 101-102.)
- 2412 FERGUSON, D. The Carboniferous limestone series. The Renfrewshire section. (The geology of the Glasgow district. XIV.) Geol. Assoc., Proc. 26, 1915: 193-194. Glasgow Univ. Geol. Dept., Papers 2, no. 1, 1915: 193-194. (47 entries. 1862-1915. Regional.)
- 2413 GEIKIE, Sir ARCHIBALD, ed. The geological structure of the north-west highlands of Scotland. . . . Glasgow, 1907, 668 pp. Gt. Brit., Geol. Surv., Mem. (Bibl., 640-653. 206 entries. 1774-1902. Regional.)
- 2414 GEIKIE, Sir ARCHIBALD. The geology of central and western Fife and Kinross. . . . Glasgow, 1900, 284 pp. Scotland. Geol. Surv., Mem. (Bibl., 262-267. 66 entries. 1774-1899. Regional.)
- 2415 GEIKIE, Sir ARCHIBALD. The geology of eastern Fife: being a description of sheet 41 and parts of sheets 40, 48, and 49 of the geological map. . . . Glasgow, 1902, 421 pp. Scotland. Geol. Surv., Mem. (Bibl., 406-412. 90 entries. 1808-1901. Regional.)
- 2416 GUNN, W., and others. The geology of Cowal including the part of Argyllshire between the Clyde and Loch Fyne. Edinburgh, 1897, 333 pp. Scotland. Geol. Surv., Mem. (Bibl., 308-309. 52 entries. 1800-96. Regional.)
- 2416a *GUNN, WILLIAM, and others. The geology of North Arran, South Bute, and the Cumbraes, with parts of Ayreshire and Kintyre. Glasgow, 1903, 200 pp. Scotland. Geol. Surv., Mem. (Bibl., 181-190.)
- 2417 HARKER, ALFRED. The Tertiary igneous rocks of Skye. . . . Glasgow, 1904, 465 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 453-456. 148 entries. 1774-1903. Regional.)
- 2417a *HARKER, ALFRED, and BARROW, G. The geology of the small isles of Inverness-shire. Glasgow, 1908, 210 pp. Scotland.

*Not seen.

- Geol. Surv., Mem. (Bibl., 197-203.)
- 2418 HICKLING, GEORGE. On the geology and palaeontology of Forfarshire. Geol. Assoc., Proc. 23, 1912: 310-311. (39 entries. 1818-1911. Regional.)
- 2418a *HILL, J. B., and others. The geology of Mid-Argyll. Glasgow, 1905, 166 pp. Scotland Geol. Surv., Mem. (List of writings. 160-162.)
- 2418b *HINKMAN, L. W., and others. The geology of Lower Strathspey. Glasgow, 1902, 91 pp. Scotland. Geol. Surv., Mem. (Bibl., 84-85.)
- 2418c *HORNE, JOHN, and others. The geology of the country round Beaully and Inverness, including a part of the Black Isle. Edinburgh, 1914, 108 pp. Scotland. Geol. Surv., Mem. 83. (Bibl., 103-105.)
- 2418d *KYNASTON, H., and others. The geology of the country near Oban and Dalmally. Glasgow, 1908, 184 pp. Scotland. Geol. Surv., Mem. (List of works. . . . 175-178.)
- 2419 LEE, G. W. The Mesozoic rocks of Applecross, Raasay, and northeast Syke. . . . Edinburgh, 1920, 93 pp. Scotland Geol. Surv., Mem. (Bibl., 90-91. 23 entries. 1819-1918. Regional.)
- 2420 MACGREGOR, M. A Jurassic shore line. Geol. Soc. Glasgow, Trans. 16, 1915-16: 85. (11 entries. 1827-1920. Regional.)
- 2421 MACNAIR, PETER. The geology and scenery of the Grampians and the valley of Strathmore. Vol. 2. Glasgow, 1908, 199 pp. (Bibl., 182-187. 75 entries. 1820-1904. Regional.)
- 2422 MACNAIR, PETER. The Hurlet sequence in north Lanarkshire. Geol. Soc. Glasgow, Trans. 15, 1914-15: 408-409. (17 entries. 1793-1914. Regional.)
- 2422a *MITCHELL, Sir ARTHUR, and CASH, C. G. A contribution to the bibliography of Scottish topography. 2 vols. Edinburgh, 1917. 706 pp. Publications of Scottish History Society, 2nd sec., vols. 14, 15.
- 2423 PEACH, B. N., and others. The geology of the neighbourhood of Edinburgh. 2d ed. Edinburgh, 1910, 445 pp. Scotland. Geol. Surv., Mem. (Bibl., 413-434. 396 entries. 1619-1909. Regional.)
- 2424 PEACH, B. N., and HORNE, JOHN. [The Silurian rocks of] Scotland. Glasgow, 1899, 749 pp. Gt. Brit. Geol. Surv., Silurian rocks of Britain. I. (Works, 717-731. 236 entries. 1795-1899. Regional.)
- 2424a *PEACH, B. N., and others. The geology of the seaboard of Mid Argyll, including the islands of Luing, Scarba, the Garvellachs, and the lesser isles, together with the northern part of Jura and a small portion of Mull. Glasgow, 1909, 121 pp. Scotland. Geol. Surv., Mem. (List of works. . . . 113-115.)
- 2424b *PEACH, B. N., and others. The geology of the Fannich Mountains, and the country around upper Loch Maree and Strath Broom. Edinburgh, 1913, 127 pp. Scotland Geol. Surv., Mem. 92. (Bibl. . . . 120-122.)
- 2425 WATSON, D. M. S. The 'Trias' of Moray. Geol. Mag., n. s. (V.) 6, 1909: 107. (23 entries. 1852-1907. Regional.)
- 2425a *WILKINSON, S. B. The geology of Islay, including Oronsay and portions of Colonsay and Jura. With notes by J. J. H. Teall and B. N. Peach. Glasgow, 1907, 82 pp. Scotland. Geol. Surv., Mem. (Bibl., 79-80.)
- See 823, 979, 1334, 1523, 2303.
- SEA LEVEL CHANGES. See ELEVATION AND SUBMERGENCE.
- SECONDARY ENRICHMENT. See ORE DEPOSITS.
- SEDIMENTATION AND DEPOSITION.
- 2426 AHLMANN, H. W. Beitrag zur Kenntnis der Transportmechanik des Geschiebes und der Laufentwicklung des reifen Flusses. Stockholm, 1914, 75 pp. Sweden. Sven. geol. Undersök., C. 262. Årsbok 8 (1914): no. 3. (Literature, 74-75. 39 entries. 1861-1914. General.)
- 2427 ANDRÉE, K. Über Sedimentbildung am Meeresboden. Geol. Rundsch., 3, 1912: 324-338; 7, 1916: 123-131; 8, 1917: 45-48; 11, 1920: 116-119. (504 entries. 1841-1916. General.)
- 2428 ANDRÉE, K. Wesen, Ursachen und Arten der Schichtung. Geol. Rundsch., 6, 1915: 352-355. (69 entries. 1866-1913. General.)

*Not seen.

- 2429 ARBENZ, PAUL. Probleme der Sedimentation und ihre Beziehungen zur Gebirgsbildung in den Alpen. Naturf. Gesell. Zurich, Vier. 64, 1919: 274-275. (27 entries. 1874-1917. Regional.)
- 2429a BUCHER, W. H. On ripples and related sedimentary surface forms and their paleogeographic interpretation. Am. Journ. Soc., 4th ser. 47, 1919: 209-10, 241-69. (ca 100 entries. 1841-1917. General.)
- 2430 CAYEUX, LUCIEN. Contribution a l'étude micrographique des terrains sédimentaires. Lille, 1897, 589 pp. (Bibl., 565-573. 312 entries. 1745-1897. Regional.)
- 2431 COLLET, L. W. Les dépôts marins. Paris, 1908, 325 pp. (Bibl., 307-316. 125 entries. 1853-1906. General.)
- 2432 JAGGAR, T. A., jr. Experiments illustrating erosion and sedimentation. Harvard Univ. Mus. Comp. Zool., Bull. 49. Geol. ser. 8, no. 6, 1906: 304-305. (18 entries. 1879-1905. General.)
- 2433 KRUIZINGA, PIETER. Bijdrage tot de kennis der sedimentaire zwerfsteenen in Nederland. s'Gravenhage, 1918, 271 pp. (Literature, 238-271. 375 entries. 1833-1917. Regional.)
- 2434 LINCK, G. Über den Chemismus der tonigen Sedimente. Geol. Rundsch., 4, 1913: 289. (23 entries. 1893-1913. General.)
- 2435 OLSSON-SEFFER, PEHR. Genesis and development of sand formations on marine coasts. Augustana Lib. Publ., 7, 1910: 36-41. (146 entries. 1825-1901. General.)
- 2436 OLSSON-SEFFER, PEHR. Relation of wind to topography of coastal drift sands. Journ. Geol., 16, 1908: 563-564. (22 entries. 1809-1902. General.)
- 2437 RAMANN, E. Die Einwirkung elektrolytarmer Wasser auf diluviale und alluviage Ablagerungen und Böden. Deutsch. geol. Gesell., Zeit. 67, 1915: 275-311. (70 entries. 1869-1916. Footnotes.)
- 2438 SAYLES, R. W. Seasonal deposition in aqueo-glacial sediments. Cambridge, 1919, 67 pp. Harvard Univ. Mus. Comp. Zool., Mem. 47, no. 1. (Literature, 64-67. 67 entries. 1859-1917. General.)
See 403, 638, 1076, 1127, 1171a, 1773, 1838, 1871, 2467, 2659.

SEISMOMETRY.

- 2439 GOLITSYN, B. B. Vorlesungen über Seismometrie. . . herausgegeben von O. Hecker. Leipzig, 1914, 538 pp. (Literature, 536-538. 65 entries. 1890-1912. General.)
See also EARTHQUAKES.

SENEGAL. See 2867a.

SERPENTINE.

- 2440 BENSON, W. N. The origin of serpentine, a historical and comparative study. Am. Journ. Sci., 4th ser. 46, 1918: 729-731. (138 entries. 1840-1916. General.)
- 2441 DRESSER, J. A. Preliminary report on the serpentine and associated rocks of southern Quebec. Ottawa, 1913, 103 pp. Canada Geol. Surv., Mem. 22. (Bibl., 4-5. 27 entries. 1849-1912. Regional.)
See 1870, 2643.

SERVIA. See JUGO-SLAVIA.

SHONKINITE. See 2145.

SHORE LINES.

- 2442 CARNEY, FRANK. The raised beaches of the Berea, Cleveland, and Euclid sheets, Ohio. Denison Univ. Sci. Lab., Bull. 14, 1908-09; 286-287. Ohio Acad. Sci., Proc. 5, pt. 4, 1909: 252-253. (15 entries. 1838-1902. Regional.)
- 2443 GOLDTHWAIT, J. W. The abandoned shore-lines of eastern Wisconsin. Madison, Wis., 1907, 134 pp. Wis. Geol. Surv., Bull. 17, Sci. ser. 5. (Bibl., 120-126. 78 entries. 1838-1906. Regional.)
- 2444 GULLIVER, F. P. Shoreline topography. Am. Acad. Arts. and Sci., Proc. 34, no. 8, 1899: 247-252. (100 entries. 1833-97. General.)
- 2444a JOHNSON, D. W. Shore processes and shoreline development. N. Y. 1919. 584 pp. (References at end of chapters; authorities cited, p. 531-551.)
- 2445 MERWIN, H. E. Some late Wisconsin and post-Wisconsin shore-lines of northwestern Vermont. Harvard Univ. Mus. Comp. Zool., Bull. 49, Geol. ser. 8, no. 7, 1908: 330. Vermont State Geol., Rept. 1908: 137. (7 entries. 1861-1906. Regional.)
See 1038, 1047.

SIBERIA.

- 2446 AHNERT, E. v. Geologische Untersuchungen an der Ost-küste des russischen Sachalins im Jahre 1907. St. Petersburg, 1908, 219 pp. Russia. Com. géol.,

- Mém. n. s. 45. (Literature, 3-4. 31 entries. 1860-1907. Regional.)
- 2447 HOTZ, W. Die Erzlagerstätten im östlichen Altai- und im Alatau-Gebirge (Westibirien). *Zeit. f. prak. Geol.*, 17, 1909: 263. (24 entries. 1869-1908. Footnotes.)
- 2448 POLÉNOFF, B. Description géologique de la partie sud-ouest de la 15-me feuille (VIII zone) de la carte général du gouvernement Tomsk (Feuille Kouznetsk). *Russ. Cab. S. M., Sec. géol., Trav.* 6, 1907: 276-289. (24 entries. 1730-1901. Regional. In Russian.)
- 2449 POLÉNOFF, B. C. Description géologique de la partie ouest de la 15-me feuille du IX zone de la carte générale du gouvernement Tomsk (feuilles Aginka et Tomsky zavode). *Russ. Cab. S. M., Sec. géol., Trav.* 8, 1915: 236-246. (18 entries. 1788-1908. Regional. In Russian.)
- 2450 RIABININ, A. Recherches géologiques dans la région de la steppe de Chiraki et de ses Alentours. *St. Petersburg, 1913*, 73 pp. *Russia. Com. géol., Mém. n. s.* 93. (Literature, 5-7. 16 entries. 1864-1913. Regional.)
- 2451 RIABININ, A. Sur la structure géologique de la chaîne de Cahétié. *St. Petersburg, 1911*, 98 pp. *Russia. Com. géol., Mém. n. s.* 69. (Literature, 3-7. 20 entries. 1864-1909. Regional.)
- 2452 *SOLOVJEV, M. Liste des travaux relatifs à la minéralogie et à la géologie de l'Oural, de la région de la Peçora, de la toundra de Timan, des steppes kirghises et de la province de l'Oural, publiés dans quelques journaux russes. *Ekaterinburg, 1908*, 57 pp.
- 2453 TANFILJEV, G. I. Die Baraba und die Kulundinsche Steppe im Bereiche des Altai-Bezirk (Kreis Barnaul, Gouv. Tomsk.). *Russ. Cab. S. M., Sec. géol., Trav.* 5, 1902: 61-77. (56 entries. 1755-1901. Regional. In Russian.)
- 2454 TOLL, EDUARD VON. Beiträge zur Kenntniss des Siberischen Cambrium. I. *St. Petersburg, 1899*, 57pp. *Acad. Sci. St. Petersburg, Mém. 8e ser.* 8, no. 10. (Literature, 3-4. 3 entries. 1886. Regional.)
See 2067a.
See also RUSSIA.
- SICILY.** See 1120, 1471, 2187, 2230, 2386, 2534, 2732a, 2813.
- SIGILLARIA.**
- 2455 ARBER, E. A. N. On the structure of *Sigillaria scutellata*, Brongn., and other Eusigillarian stems, in comparison with those of other Palaeozoic Lycopods. *Roy. Soc. London, Phil. Trans. B.* 200, 1908: 159-161. (36 entries. 1839-1907. General.)
- 2456 ZALESSKY, M. Zur quelques sigillaires recueillies dans le terrain houiller du Donetz. *St. Petersburg, 1902*, 20 pp. *Russia. Com. géol., Mém.* 17, no. 3. (Literature, 14-15. 24 entries. 1820-1900. Regional.)
- SILESIA.**
- 2457 AHLBURG, JOHANNES. Die Trias im südlichen Oberschlesien. *Berlin, 1906*, 163 pp. *Prussia. Geol. Landesanst., Abh. n. f.* 50. (Literature, 157-163. 156 entries. 1820-1904. Regional.)
- 2458 CRAMER, RUDOLF. Die Unter-carbonfauna von Gaablaun in Niederschlesien. *Prussia. Geol. Landesanst., Jahrb.* 33-I hft. 1, 1912: 70-72. (44 entries. 1836-1911. Regional.)
- 2459 EBELING, FRANZ. Die Geologie der Waldenburger Steinkohlenmulde. *Breslau, [1907]*, 231 pp. (Literature, 2-8. 72 entries. 1662-1907. Regional.)
- 2460 HERBING, JOHANNES. Über Steinkohlenformation und Rothliegendes bei Landeshut, Schatzlar und Scheadowitz. *Breslau, 1906*, 88 pp. (Literature, 86-88. 58 entries. 1836-1903. Regional.)
- 2461 RAEFLER, FRIEDRICH. Die Brauneisenerzlagerstätten Oberschlesiens. *Berlin, 1915*, [101] pp. *Arch. Lagerstättenf.*, 22. (Literature [101]. 24 entries. 1828-1912. Regional.)
See 374, 724.
See also POLAND.
- SILICATE MELTS.** See 1760a, 1761.
- SILICIFICATION.** See 939, 1693.
- SILURIAN.** See 303, 472, 492, 542, 632, 664, 669, 864, 902, 913, 987, 1115, 1181, 1334, 1547, 1877, 1890, 1906, 1907, 1914, 2035, 2041, 2093, 2209, 2424, 2527, 2528, 2550, 2556, 2557, 2558, 2564, 2575, 2676, 2717b, 2718, 2721, 2833.

*Not seen.

SILVER. See 782, 797, 798, 1302, 1304, 1305, 1406, 1740a, 1816, 1984, 2059, 2285, 2286, 2490, 2558, 2564, 2565, 2651, 2669, 2686b, 2788, 2833.

SLATE.

2462 DALE, T. N. The slate belt of eastern New York and Western Vermont. U. S. Geol. Surv., Ann. Report 19-III, 1899: 166-174. (117 entries. 1843-98. General.)

2463 DALE, T. N. Slate deposits and slate industry of the United States. Washington, 1906, 154 pp. U. S. Geol. Surv., Bull. 275. (Bibl., 138-145, 149 entries. 1836-1904. General.)

2464 DALE, T. N., and others. Slate in the United States. Washington, 1914, 220 pp. U. S. Geol. Surv., Bull. 586. (Bibl., 205-213. 190 entries. 1836-1912. General.)

See 300, 2530.

SOAPSTONE. See 315.

SOILS.

2465 BLANCK, E. Die neue kolloid-chemische Forschungsrichtung in der Bodenkunde in ihrer Beziehung zur Geologie. Geol. Rundsch., 6, 1915: 413-414. (33 entries. 1903-14. General.)

2466 FISCHER, HERM. Bodenkundliche Probleme in ihrer Bedeutung für die Geologie. Geol. Rundsch., 7, 1916: 345-346. (38 entries. 1895-1914. General.)

2467 STUNTZ, S. C., and FREE, E. E. Bibliography of eolian geology. U. S. Bur. Soils, Bull. 68, 1911: 175-263. (2532 entries. ?1834-1910. General.)

See 55, 67, 104, 1837, 1838, 2027, 2028, 2195, 2437.

See also PUBLICATIONS, U. S. BUREAU OF SOILS.

SOILS, ALKALI.

2468 DORSEY, C. W. Alkali soils of the United States. A review of literature and summary of present information. Washington, 1906, 196 pp. U. S. Bur. Soils, Bull. 35. (Bibl., 58-60. 50 entries. 1877-1904. Regional.)

SOUTH AFRICA.

2469 HATCH, F. H., and CORSTORPHINE, G. S. The geology of South Africa. London, 1905, 336 pp. (Literature, [313]-336. 342 entries. 1812-1904. Regional.)

2470 LESLIE, T. N. The fossil flora of Vereeniging. Geol. Soc. S. Afr., Trans. 6, 1904: 88. (19 entries. 1828-1903. Regional.)

2471 LIEBENAM, W. A. Die Witwatersrand-Goldindustrie vom bergwirtschaftlichen Standpunkte aus. Zeit. f. prak. Geol., 1903: 433-434. (47 entries. 1877-1902. Regional.)

2472 SEWARD, A. C. Fossil floras of Cape Colony. S. Afr. Mus., Ann. 4, 1903: 107-116. (196 entries. 1827-1902. Regional.)

2473 WILMAN, M. Catalogue of printed books, papers and maps relating to the geology and mineralogy of South Africa. S. Afr. Phil. Soc., Trans. 15, pt. 5, 1905: 283-467. (Regional.)

See 34, 40, 314, 826, 921, 922, 923, 925, 1300, 1722, 1825, 1826.

SOUTH AMERICA.

2474 COURTY, G. Explorations géologiques dans l'Amerique du sud. . . . Paris, 1907, 208 pp. (Bibl., 169-180. 91 entries. 1609-1906. Regional.)

2475 JAWORSKI, ERICH. Beiträge zur Kenntnis des Jura in Süd-Amerika. Teil II. (Beiträge zur Geologie und Paläontologie von Südamerika. XXIII.) N. J. f. Min., B. B. 40, 1916: 365-374. (211 entries. 1820-1911. Regional.)

2476 MILLER, B. L., and SINGEWALD, J. T., jr. The mineral deposit of South America. 1st ed. N. Y., 1919, 598 pp. (1034 entries. 1833-1918. Regional. Bibliographies at end of chapters.)

2476a *PAN AMERICAN UNION. Columbus memorial library. Geology of Latin America. List of books and magazine articles on the geology of the Latin American republics. Washington, D. C., 1917. 13 numb. leaves (autographed).

2477 PAULCKE, W. Ueber die Kreideformation in Südamerika und ihre Beziehungen zu anderen Gebieten. (Beiträge zur Geologie und Paläontologie von Südamerika. X.) N. J. f. Min., B. B. 17, 1903: 253-259. (145 entries. 1842-1902. Regional.)

2478 SEEVERS, WILHELM. Süd- und Mittelamerika. 3d ed. Leipzig and Wien, 1914, 567 pp. (Literature, 523-536. 715 entries. 1809-1914. Regional.)

2479 STAUFFER, C. R. A review of literature on the geology of South America. Ohio Nat., 11.

*Not seen.

1911: 273-285. (50 entries. 1860-1908. Footnotes.)

- 2480 WINDHAUSEN, A. The problem of the Cretaceous-Tertiary boundary in South America and the stratigraphic position of the San Jorge-formation in Patagonia. *Am. Journ. Sci.*, 4th ser. 45, 1918: 1-53. (123 entries. 1851-1916. Footnotes.)
See 835, 1086, 1376, 2106.

SOUTH AUSTRALIA.

- 2481 HOWCHIN, WALTER. The geology of South Australia (in two divisions). Adelaide, 1918, 543 pp. (Bibl. ref. 499-502. 39 entries 1870-1916. Regional.)
- 2481a JACK, R. L. The geology and prospects of the region to the south of the Musgrave Ranges, and the geology of the western portion of the great Australian, artesian basin. . . . Adelaide, 1915, 72 pp. *S. Aust. Geol. Surv.*, Bull. 5. (Bibl., [54]. 12 entries. 1872-1915. Regional.)
- 2482 MAWSON, D. Geological investigations in the Broken Hill area. *Roy. Soc. S. Aust.*, Mem. 2, 1912: 214-217. (38 entries. 1883-1911. Regional.)
- 2483 [WARD, L. K.] Catalogue of the publications of the Geological survey of South Australia, together with other official publications dealing with the geology and mineral resources of South Australia. *S. Aust. Gov. Geol.*, Ann. Rept. 1915, App.: 11-22. (146 entries. 1860-1915. Regional.)
- 2484 WARD, L. K. The possibilities of the discovery of petroleum on Kangaroo Island and the western coast of Eyre's Peninsula. Adelaide, 1913, 27 pp. *S. Aust. Geol. Surv.*, Bull. 2. (Literature, 6-7. 4 entries. 1883-98. Regional.)
- 2485 WARD, L. K., and JACK, R. L. The Yudnamutana mining field. Adelaide, 1916, 20 pp. *S. Aust. Geol. Surv.*, Rept. 3. (Literature, 7. 4 entries. 1863-1908. Regional.)
- 2486 WRATHALL, L. L., *comp.* Bibliography of articles and works of reference dealing with the geology of supposed oil-bearing areas in South Australia, and the evidences on which these suppositions are based. *S. Aust. Geol. Surv.*, Bull. 4, App. iii, 1915:

51-54. (145 entries. 1862-1914. Regional.)

See 75, 84a, 254, 2823.

SOUTH CAROLINA.

- 2487 PUGH, G. T. Pleistocene deposits of South Carolina. Nashville, Tenn., 1905, 74 pp. (Bibl., 67-74. 108 entries. 1731-1905. Regional.)
See 859, 1069.

SOUTH DAKOTA.

- 2488 FERGUSON, H. G., and TURGEON, F. N. An occurrence of Harney granite in the northern Black Hills. *Harvard Univ. Mus. Comp. Zool.*, Bull. 49. *Geol. ser.* 8, no. 5, 1908: 282. (14 entries. 1880-1905. Regional.)
- 2489 FRAZER, PERSIFOR. Notes on the northern Black Hills of South Dakota. *Am. Inst. M. E.*, Trans. 27, 1898: 230-231. (25 entries. 1856-91. Regional.)
- 2490 HENDERSON, C. W. Gold, silver, copper, and lead in South Dakota in 1914. (Mines report.) *U. S. Geol. Surv.*, Min. Res. 1914-I, 1916: 245. (18 entries. 1869-1913. Regional.)
- 2491 JAGGAR, T. A., *jr.* Economic resources of the northern Black Hills. Part I. General geology. *U. S. Geol. Surv.*, Prof. Paper 26, 1904: 13-14. (10 entries. 1869-1902. Regional.)
- 2492 O'HARRA, C. C. The Badland formations of the Black Hills region. Rapid City, 1910, 152 pp. *S. Dak. Sch. Mines. Bull. Dept. Geol.* 9. (Bibl., 135-144. 144 entries. 1846-1909. Regional.)
- 2493 O'HARRA, C. C. A bibliography of contributions to the geology and geography of the Black Hills region. *S. Dak. Sch. Mines. Bull.* 45-86. (217 entries. 1846-99. Regional.)
- 2494 O'HARRA, C. C. A bibliography of the geology and mining interests of the Black Hills region. Rapid City, 1917, 216 pp. *S. Dak. Geol. Surv.*, Bull. Dept. Geol. 11. (1187 entries. 1814-1917. Regional.)
- 2495 O'HARRA, C. C. The White River badlands. Rapid City, 1920, 181 pp. *S. Dak. Sch. Mines. Bull. Dept. Geol.* 13. (Bibl., 161-174. 174 entries. 1846-1918. Regional.)
- 2496 VISHER, S. S. The geography of South Dakota. Report of the state geologist 1916-1918. Vermillion, 1918, 189 pp. *S. Dak.*

- Geol. Surv., Bull. 8. (Bibl., 163-168. 127 entries. 1857-1915. Regional.)
- 2497 WARD, FREEMAN. Bibliography of South Dakota geology. Selected references. S. Dak. Geol. Surv., Circ. 5. (47 entries. 1894-1918. Select.)
- 2498 WINCHESTER, D. E., HARES, C. J., LLOYD, E. R., and PARKS, E. M. The lignite field of northwestern South Dakota. Washington, 1916, 169 pp. U. S. Geol. Surv., Bull. 627. (Bibl., 164-165. 29 entries. 1857-1914. Regional.)
- 2499 ZIEGLER, VICTOR. The minerals of the Black Hills. Rapid City, 1914, 250 pp. S. Dak. Sch. Mines. Bull. Dept. Geol. 10. (Bibl., 229-248. 140 entries. 1880-1913. Regional.)

See 2727, 2730, 2741.

SOUTHWEST AFRICA.

- 2500 HERMANN, PAUL. Beiträge zur Geologie von Deutsch-Südwestafrika. Zeit. f. prak. Geol., 17, 1909: 372-373. (41 entries. 1856-1908. Regional.)
- 2501 LOTZ, H., BÖHM, J., and WEISFERMEL, W. Geologische und paläontologische Beiträge zur Kenntnis der Lüderitzbuchter Diamantablagerungen. Berlin, 1913, 111 pp. Beitr. geol. Erfors. Deuts. Schutz. 5. (Literature, [3]-13. 22 entries. 1909-11. Footnotes.)
- 2502 RANGE, PAUL. Ergebnisse von Bohrungen in Deutsch-Südwestafrika. Berlin, 1915, 136 pp. Beitr. geol. Erfors. Deuts. Schutz. 11. (Literature, [26]-30. 64 entries. 1887-1915. Regional.)
- 2503 RANGE, PAUL. Geologie des deutschen Namalandes. Berlin, 1912, 104 pp. Beitr. geol. Erfors. Deuts. Schutz. 2. (Literature, 99-104. 91 entries. 1884-1910. Regional.)
- 2504 RIMANN, EBERHARD. Beitrag zur Geologie von Deutsch-Südwestafrika. Deutsch. geol. Gesell., Zeit. 68, 1916: 327-343. (14 entries. 1910-14. Footnotes.)
- 2505 WAGNER, P. A. The geology and mineral industry of south-west Africa. Pretoria, 1916, 243 pp. Union S. Afr. Geol. Surv., Mem. 7. (Bibl., [11]-14. 122 entries. 1838-1915. Regional.)

See 107.

*Not seen.

SPAIN.

- 2506 *CARANDELL, JUAN. El glaciario cuaternario en los montes ibéricos. Madrid, 1918, 62 pp. Mus. cienc. nat. Madrid, Trab. [Ser. geol.] 22. (Bibl. glaciológica, 15-17.)
- 2506a DANTÍN CERECEDA, JUAN. Resumen fisiográfico de la Península ibérica. Madrid, 1912, 275 pp. Mus. cienc. nat. Madrid, Trab. 9. [Ser. Geol. 4.] (Bibl., 8-17. 124 entries. 1872-1912. Regional.)
- 2507 DOUVILLÉ, ROBERT. La Péninsule Ibérique. A. Espagne. Heidelberg, 1911, 175 pp. Handb. reg. Geol., 7 hft. (Bibl., 163-173. 273 entries. 1823-1910. Regional.)
- 2508 EWALD, RUDOLF. Untersuchungen über den geologischen Bau und die Trias in der Provinz Valencia. Deutsch. geol. Gesell., Zeit. 63, 1911: 373. (18 entries. 1875-1910. Regional.)
- 2509 FINLAYSON, A. M. The pyritic deposits of Huelva, Spain, Pt. II. Econ. Geol., 5, 1910: 435-437. (63 entries. 1857-1907. Regional.)
- 2509a *GÓMEZ DE LLARENA, JOAQUIN. Bosquejo geográfico-geológico de los montes de Toledo. Madrid, 1916, 74 pp. Mus. cienc. nat. Madrid, Trab. [Ser. Geol.] 15. (Bibl., 6-8.)
- 2509b *GÓMEZ LLUECA, FEDERICO. El mioceno marino de Muro (Mallorca). Madrid, 1919, 74 pp. Mus. cienc. nat. Madrid, Trab. [Ser. geol.] 25. (Works, 67-72.)
- 2510 GROSCH, P. Die Eisenerzlagstätten von Bilboa. Geol. Rundsch., 5, 1915: 393. (13 entries. 1879-1911. Regional.)
- 2511 HERNÁNDEZ-PACHECO, EDUARDO. Itinerario geológico de Toledo á Urda. Madrid, 1912, 46 pp. Mus. cienc. nat. Madrid, Trab. [Ser. Geol.] 1. (Bibl., 5-10. 14 entries. 1874-1908. Regional.)
- 2512 HOYER, ———. Beiträge zur Kenntnis der Manganerzlagstätten in der spanischen Provinz Huelva. Zeit. f. prak. Geol., 19, 1911: 407-408. (46 entries. 1861-1910. Regional.)
- 2512a MENGAUD, LOUIS. Recherches géologiques dans la région Cantabrique. Toulouse, 1920, 370 pp. (Bibl., 21-38. 123 entries. 1837-1919. Regional.)

- 2512b *OBERMAIER, HUGO. Contribución al estudio del glaciario cuaternario de la Sierra de Gredos. Madrid, 1916, 54 pp. Mus. cienc. nat. Madrid, Trab. [Ser. geol.] 14. (Bibl., glaciológica, 10-14.)
- 2512c *OBERMAIER, HUGO. Los glaciares cuaternarios de la Sierra de Guadarrama. Madrid, 1917, 94 pp. Mus. cienc. nat. Madrid, Trab. [Ser. geol.] 19. (Bibl., glaciológica, 17-28.)
- 2512d *OBERMAIER, HUGO. Los glaciares cuaternarios de Sierra Nevada. Madrid, 1916, 86 pp. Mus. cienc. nat. Madrid, Trab. [Ser. Geol.] 17. (Bibl., glaciológica, 17-28.)
- 2513 PUIG Y LARRAZ, G. Notas bibliográficas. Spain. Com. Geol., Bol.: 1895, vol. 22, 249-352; 1896, vol. 23, 1-28; 1897, vol. 24, 1-26; 1898, vol. 25, 377-404; 1899, vol. 26, 257-281. (930 entries. 1895-99. Regional.)
- 2514 SCHLOSSER, MAX. Über Tertiär und weissen Jura von Chelva in der Provinz Valencia. Centralb. f. Min., 1919: 340-349. (17 entries. 1888-1911. Footnotes.)
- 2515 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Réunion extraordinaire a Barcelone (Espagne). . . Liste des publications principales relatives aux régions visitées. . . Its Bull. 3d ser. 26, 1898: 662-665. (77 entries. 1820-98. Regional.)
- 2516 VILASECA, SALVADOR. Contribució al estudi dels terrenys triasics de la província de Tarragona. Barcelona, 1920, 66 pp. Publ. cienc. nat. Barcelona. 8. (Bibl., 63-66. 78 entries. 1834-1919. Regional.)
See 85, 1595, 1603, 1641, 2268, 2805.
See also BALEARIC ISLANDS.
- PYRENEES MOUNTAINS.**
- SPELEOLOGY.** See CAVES.
- SPHERULITES.** See 2126.
- SPITZBERGEN.**
- 2517 NATHORST, A. G. Ginkgo adiantoides (Heer) Heer im Tertiär Spitzbergens nebst einer kurzen übersicht der übrigen fossilen Ginkgophyten desselben Landes. Geol. Fören. Stockh. Förh. 41, 1919: 247-248. (21 entries. 1868-1913. Regional.)
- 2518 *SIDLOVSKIJ, A. F. Le Spitsberg dans l'histoire russe et dans la

bibliographie. . . St. Petersburg, 1912, 64 pp.
See 257, 418, 503, 1122, 1297, 1400, 2311.

SPONGES.

- 2519 HALL, JAMES, and CLARKE, J. M. A memoir on the Paleozoic reticulate sponges constituting the family Dictyospongiae. N. Y. 1898, 350 pp. N. Y. State Mus., Mem. 2. (Bibl., 41-51. 42 entries. 1842-97. General.)
- 2520 KOLB, RUDOLF. Die Kiesel-spongien des schwäbischen Weissen Jura. Palaeontographica, 57, 1910-11: [255]-256. (50 entries. 1702-1907. General.)
- 2521 O'CONNELL, MARJORIE. The Schrammen collection of Cretaceous Silicispongiae in the American Museum of Natural History. Am. Mus. Nat. Hist., Bull. 41, art. 1, 1919: 212-233. (258 entries. 1699-1915. General.)
- 2522 OPPLIGER, FRITZ. Die Juraspongien von Baden. Zürich, 1897, 58 pp. Schw. paläont. Gesell., Abh. 24. (Literature, 56-58. 60 entries. 1826-95. General.)
- 2523 OPPLIGER, FRITZ. Die Spongien der Birmensdorfschichten des schweizerischen Jura. Genève, 1915, 84 pp. Schw. paläont. Gesell., Abh. 40. (Literature, 83-84. 36 entries. 1769-1911. General.)

SPRINGS.

- 2524 BRYAN, KIRK. Classification of springs. Journ. Geol., 27, 1919: 522-561. (43 entries. 1892-1918. Footnotes.)
- 2525 LUGEON, MAURICE. Les sources thermales de Loèche-les-Bains (Leukerbad-Valais). Berne, 1912, 31 pp. Matér. carte géol. Suisse. n. s. 38. (Bibl., 30-31. 44 entries. 1476-1911. Regional.)
- 2526 SCHRÉTER, ZOLTAN. Die Spuren der Tätigkeit tertiärer und pleistozäner Thermalquellen im Budaer Gebirge. Hungary. Geol. Anst., Mitth. 19, 1912: 260-262. (48 entries. 1822-1911. Regional.)
See 1741a, 2751.

STEEL. See 1445, 1446.

STROMATOPOROIDEAE.

- 2527 BOEHNKE, KUNIBERT. Die Stromatoporen der nordischen Silurgeschiebe in Norddeutschland und in Holland. Palaeontographica. 61, 1915: [190]. (36 entries. 1826-1910. General.)

*Not seen.

- 2528 PARKS, W. A. Niagara Stromatopoids. Toronto Univ. studies. Geol. ser. 5, 1908: 5-9. (19 entries. 1851-1906. Regional.)
- 2529 PARKS, W. A. Ordovician Stromatopoids. Toronto Univ. studies. Geol. ser. 7, 1910: 5-7. (32 entries. 1847-1909. General.)
See 1166a.

STRONTIANITE. See 652.

STRUCTURAL MATERIALS.

- 2530 U. S. GEOLOGICAL SURVEY. Survey publications on building and other stone, slate, and road metal. *Its Min. Res.* 1914-II, 1916: 889-891. (84 entries. 1882-1914. Regional.)

STYLOLITES.

- 2531 WAGNER, GEORG. Stylolithen und Drucksuturen. Geol. u. paläont. Abh., n. f. 11, hft. 2-1, 1913: 28-29. (28 entries. 1834-1908. General.)

STYRIA. See AUSTRIA.

SUBMARINE VALLEYS.

- 2532 SPENCER, J. W. Bibliography of submarine valleys off North America. *Am. Journ. Sci.*, 4th ser. 19, 1905: 341-344. (38 entries. 1863-1905. Regional.)

SUBMERGENCE. See ELEVATION AND SUBMERGENCE.

SULPHUR.

- 2533 BRAUNS, REINHARD. Beobachtungen über die Krystallisation des Schwefels aus seinem Schmelzfluss. *N. J. f. Min.*, B. B. 13, 1899-1901: 39-41. (50 entries. 1823-99. General.)
- 2534 HUNT, W. F. The origin of the sulphur deposits of Sicily. *Econ. Geol.*, 10, 1915: 543-579. (54 entries. 1838-1913. Footnotes.)
See 1740a, 2268.

SUMATRA.

- 2535 BÜCKING, H. Zur Geologie von nord- und ost-Sumatra. Leiden. Geol. R. Mus., Samml. I. 8, 1912: 1-2. (28 entries. 1875-1904. Regional.)
- 2536 REDFIELD, A. H. The Djambi oil field of Sumatra. *Eng. and Min. Journ.*, 112, 1921: 943. (15 entries. 1876-1921. Regional.)
- 2537 VOLZ, WILHELM. Beiträge zur geologischen Kenntniss von Nord-Sumatra. *Deutsch. geol. Gesell., Zeit.* 51, 1899: 2. (12 entries. 1876-98. Regional.)

SUNDA ISLANDS. See DUTCH EAST INDIES.

SURINAM. See DUTCH GUIANA.

SWEDEN.

- 2538 ERIKSON, BERTIL. En submorän fossilförande aflagring vid Bollnäs i Hälsingland. Geol. Fören. Stockh. Förh. 34, 1912: 540-541. (30 entries. 1891-1911. Regional.)
- 2539 FRÖDIN, GUSTAF. Einige Beobachtungen über den Oldengranit und die Subkambrische Denudationsfläche innerhalb der kaledonischen Faltenzone in Jämtland. Upsala Univ., Bull. Geol. Inst. 132, 1916: 285-286. (24 entries. 1872-1914. Regional.)
- 2540 FRÖDIN, GUSTAF. Om fjällproblemet nuvarande läge i Sverige. Geol. Fören. Stockh. Förh., 43, 1921: 174-176. (48 entries. 1873-1920. Regional.)
- 2541 FRÖDIN, JOHN. Geografiska studier i St. Lule älvs källområde. Stockholm, 1914, 276 pp. Sweden. Sver. geol. Undersök. C. 257. Årsbok 7 (1913), no. 4. (Literature, 6-12. 112 entries. 1884-1914. Regional.)
- 2542 GEIJER, PER. Contributions to the geology of the Sydvaranger iron ore deposits. Geol. Fören. Stockh. Förh., 33, 1911: 340-341. (30 entries. 1891-1910. Regional.)
- 2543 GERTZ, OTTO. Några nya fyndorter för arktiska växtlämningar i Skåne. Geol. Fören. Stockh. Förh., 39, 1917: 558-561. (70 entries. 1873-1916. Regional.)
- 2544 HALDEN, B. E. Det interglaciala Bollnäsfyndets stratigrafi. Geol. Fören. Stockh. Förh., 37, 1915: 478-479. (31 entries. 1877-1915. Regional.)
- 2544a HALDEN, B. E. Om torvmossar och marina sediment inom norra Hälsinglands litorinaområde. Stockholm, 1917, 226 pp. Sweden. Sver. geol. Undersök., C. 280. Årsbok 11 (1917) no. 1. (Litteratur, 223-227. 104 entries. 1849-1916. Regional.)
- 2545 HALLE, T. G. Några Jämtländska kalktuffer och deras flora. Stockholm, 1915, 49 pp. Sweden. Sver. geol. Undersök., C. 260. Årsbok 8 (1914), no. 1. (Literature, 48-49. 39 entries. 1876-1914. Regional.)
- 2546 HEDSTRÖM, HERMAN and WIMAN, C. Beskrifning till Blad 5 omfattande de topografiska kartbladen Lessebo, Kalmar, Karlskrona, Ottenby (samt Utklip-porna). Stockholm, 1906, 124 pp.

- Sweden. Sver. geol. Undersök., A1, a. (Works, 118-120. 39 entries. 1871-1904. Regional.)
- 2547 HÖGBOM, A. G. Geologisk beskrivning över Jämtlands län. Stockholm, 1920, 138 pp. Sweden. Sver. geol. Undersök., C. 140. (Literature, 135-138. 104 entries. 1859-1920. Regional.)
- 2548 HÖGBOM, A. G. The igneous rocks of Ragunda, Alnö, Rödö and Nordingrå. Geol. Fören. Stockh. Förh. 31, 1909: 347. Int. Geol. Cong., XI. Stockholm, 1910. Liv.-guide no. 3:1. (5 entries. 1895-1910. Regional.)
- 2549 HÖGBOM, A. G. Pre-Cambrian geology of Sweden. Upsala Univ. Bull. Geol. Inst. 10, 1910-1911: 76-77. (37 entries. 1870-1910. Regional.)
- 2550 HÖGBOM, A. G. Quartärgeologische Studien im mittleren Norrland. Geol. Fören. Stockh. Förh., 31, 1909: 627. Int. Geol. Cong., XI. Stockholm, 1910. Liv.-guide 12: 71. (15 entries. 1888-1910. Regional.)
- 2551 HÖGBOM, A. G. Studies in the post-Silurian thrust region of Jämtland. Geol. Fören. Stockh. Förh. 31, 1909: 343-344. Int. Geol. Cong., XI. Stockholm, 1910. Liv.-guide 2: 55-56. (19 entries. 1873-1910. Regional.)
- 2552 HÖGBOM, A. G., GAVELIN, AXEL, and HEDSTRÖM, H. Excursions in the Archaean of southern Sweden. Geol. Fören. Stockh. Förh. 322, 1910: 1049-1050. (17 entries. 1881-1910. Regional.)
- 2553 HOLMQUIST, P. J. The Archaean geology of the coast-regions of Stockholm. Geol. Fören. Stockh. Förh., 322, 1910: 906-907. Int. Geol. Cong., XI. Stockholm, 1910. Liv.-guide 15: 118-119. (14 entries. 1854-1909. Regional.)
- 2554 HOLMQUIST, P. J. Swedish Archaean structures and their meaning. Upsala Univ., Bull. Geol. Inst. 15, 1916: 146-148. (48 entries. 1880-1916. Regional.)
- 2555 LUNDQUIST, G. Jungfrun Island in Kalmarsund, Sweden. The granite and its surface. Geogr. Ann., 2, 1920: [224]. (16 entries. 1741-1915. Regional.)
- 2556 MOBERG, J. C. Guide for the principal Silurian districts of Scania (with notes on some localities of Mesozoic beds). Geol. Fören. Stockh. Förh., 321, 1911: 45-47, 81-84, 90-92, 132, 149-150, 192-194. Int. Geol. Cong., XI. Stockholm, 1910. Liv.-guide 40: 1-2, 37-40, 46-48, 88, 105-106, 148-150. (103 entries. 1827-1909. Regional.)
- 2557 MOBERG, J. C. Historical-stratigraphical review of the Silurian of Sweden. Stockholm, 1911, 210 pp. Sweden. Sver. geol. Undersök., C. 229. Årsbok 4 (1910), no. 1. (355 entries. 1727-1910. Regional. Bibliographies through the text.)
- 2558 MUNTHE, HENR. On the sequence of strata within southern Gotland. Geol. Fören. Stockh. Förh., 323, 1910: 1451-52. Int. Geol. Cong. XI. Stockholm, 1910. Liv.-guide 19: 55-56. (31 entries. 1745-1910. Regional.)
- 2559 MUNTHE, HENR. Studier öfver Gottlands senkvartära historia. Stockholm, 1910, 213 pp. Sweden. Sver. geol. Undersök., Ca. 4. (Literature, 208-213. 192 entries. 1727-1909. Regional.)
- 2560 MUNTHE, HENR. Studies in the late-Quaternary history of southern Sweden. Geol. Fören. Stockh. Förh., 323, 1910: 1288-1292. Int. Geol. Cong. XI. Stockholm, 1910. Liv.-guide 25: 92-96. (67 entries. 1886-1910. Regional.)
- 2561 NATHORST, A. G. Les dépôts mésozoïques précérétacés de la Scanie. Geol. Fören. Stockh. Förh., 321, 1911: 531-532. Int. Geol. Cong., XI. Stockholm, 1910. Liv.-guide 38: 45-46. (22 entries. 1869-1910. Regional.)
- 2562 NATHORST, A. G. Spätglaciale Süswasserablagerungen mit arktischen Pflanzenresten in Schonen. Geol. Fören. Stockh. Förh. 321, 1910: 558-560. (35 entries. 1870-1910. Regional.)
- 2563 NELSON, HELGE. Om randdeltan och randåsar i mellersta och södra Sverige. Stockholm, 1910, 252 pp. Sweden. Sver. geol. Undersök., C. 220. Årsbok 3 (1909), no. 3. (Literature, 230-234. 98 entries. 1876-1910. Regional.)
- 2564 OLIN, E. Om de Chasmopskalken och Trinucleusskriffern motsvarande bildningarne i Skåne. Lund, 1906, 79 pp. Lunds geol. fältk., Meddel. B. 1. (Literature.

- 5-6. 30 entries. 1846-1902. Regional.)
- 2565 OLIVECRONA, HELMER. Om Västerdalarnas sandstensformation och dess tektonik. Geol. Fören. Stockh. Förh., 42, 1920: 362. (20 entries. 1819-1920. Regional.)
- 2566 POST, LENNART VON. Stratigraphische Studien über einige Torfmoore in Närke. Geol. Fören. Stockh. Förh., 31, 1909: 705-706. Int. Geol. Cong., XI, Stockholm, 1910. Liv.-guide 13: 77-78. (17 entries. 1787-1906. Regional.)
- 2567 SANDEGREN, R. Hornborgasjön. En monografisk framställning av dess postglaciala utvecklings-historia. Stockholm, 1916, 94 pp. Sweden. Sver. geol. Undersök., Ca 14. (38 entries. 1891-1915. Regional.)
- 2568 SERNANDER, RUTGER. Svenska kalktuffer. Geol. Fören. Stockh. Förh., 38, 1916: 185-189. (78 entries. 1727-1916. Regional.)
- 2569 STUTZER, O. Die Eisenerz-lagerstätte "Gellivare" in Nord-schweden. Zeit. f. prak. Geol., 1906: 137. (21 entries. 1877-1903. Regional.)
- 2570 SUNDELIN, UNO. Fornsjöstudier inom Stångåns och Svartåns vattenområden med särskild hänsyn till den sen- och post-glaciala klimatutvecklingen. Stockholm, 1917, 290 pp. Sweden. Sver. geol. Undersök., Ca 16. (Literature, 276-282. 217 entries. 1773-1917. Regional.)
- 2571 SUNDELIN, UNO. Über die spät-quartäre Geschichte der Küstengegenden öster-götlands und Smålands. Upsala, Univ. Bull. Geol. Inst., 16, 1919: 240-242. (55 entries. 1774-1919. Regional.)
- 2572 TEGENGREN, F. R. Järnmalmstillgångarna i mellersta och södra Sverige utredning verkställd åren 1907-09. Stockholm, 1912, 16 pp. + 19 pp. Sweden. Sver. geol. Undersök., Ca 8. (Bibl., 1-16 following p. 19. 510 entries. 1643-1910. Regional.)
- 2573 TÖRNEBOHM, A. E., and HENNIG, A. Beskrifning till Blad 1 and 2 omfattande de topografiska kart-bladen Landskrona, Lund, Kristianstad, Malmö, Ystad, Simrishamn. Stockholm, 1904, 198 pp. Sweden. Sver. geol. Undersök., A1, a. (Works, 190-194. 85 entries. 1869-1904. Regional.)
- 2574 TROEDSSON, GUSTAF. Skånes dalmanitesskiffer, en strandbildning. Geol. Fören. Stockh. Förh., 42, 1920: 289-290. (20 entries. 1896-1920. Regional.)
- 2575 VAN HOEPEN, E. C. N. De bouw van het silur van Gotland. [Delft, 1910], 161 pp. (Literature, 11-20. 122 entries. 1745-1909. Regional.)
- 2576 WALLÉN, A. Régime hydrologique du Dalelf. Upsala Univ., Bull. Geol. Inst. 8, 1906-07: 70-72. (67 entries. 1881-1904. Regional.)
- 2577 WIMAN, C. Remarques sur le crétacé à Belemnitella mucronata dans la Scanie. Upsala Univ., Bull. Geol. Inst. 16, 1919: 315-316. (21 entries. 1884-1918. Regional.)
See 9, 43, 44, 86, 91, 490, 664, 709, 1127, 1243, 1289a, 1317, 1443, 1449, 1452, 1512, 1537, 1641, 1777, 1785, 1788, 1819.
See also FENNOSCANDIA, LAPLAND, SCANDINAVIA.
- SWITZERLAND.**
- 2578 *ARNDT, HEINRICH. Petrographische Studien in den Kontaktzonen der Gneise und Kalkgesteine im Simplongebiete. Breslau, 1914, 46 pp. Sonderabdruck aus dem Jahresbericht der schlesischen Gesellschaft für vaterländische Cultur. 1913. (Bibl. through text.)
- 2578a AVEBURY, JOHN LUBBOCK, Baron. The scenery of Switzerland and the causes to which it is due. N. Y., 1896, 371 pp. (Works, 367-371. 143 entries. 1841-94. Regional.)
- 2579 BARTHOLMÈS, FRANÇOIS. Contribution à l'étude des roches éruptives basiques contenues dans le massif de la Dent Blanche. Lausanne, Univ. Lab. géol., Bull. 27, 1920: 91-92. (47 entries. 1871-1916. Regional.)
- 2580 BAUMBERGER, E. Beiträge zur Geologie der Umgebung von Biel und Grenchen. Naturf. Gesell. Basel, Verh. 26, 1915: 111-112. (20 entries. 1825-1914. Regional.)
- 2581 BAUMBERGER, ERNST, and MENZEL, PAUL. Beitrag zur Kenntnis der Tertiärflora aus dem Gebiete des Vierwaldstätter Sees. Genève,

*Not seen.

- 1914, 84 pp. Soc. paléont. suisse, Mém. 40. (Literature, 17-20. 68 entries. 1825-1913. Regional.)
- 2582 BAUMBERGER, E., and MOULIN, H. La série Néocomienne à Valangin. Soc. neuch. sci. nat., Bull. 26, 1898: 208-210. (44 entries. 1835-98. Regional.)
- 2583 BECK, PAUL. Geologie der Gebirge nördlich von Interlaken. Bern, 1911, 100 pp. Beitr. geol. Karte Schweiz, n. f. 29. (Literature, v-ix. 130 entries. 1773-1911. Regional.)
- 2584 BLÖSCH, EDUARD. Zur Tektonik des schweizerischen Tafeljura. N. J. f. Min., B. B. 29, 1910: 667-680. (231 entries. 1809-1909? Regional.)
- 2585 BLUMENTHAL, MORITZ. Der Calanda. Bern, 1912, 48 pp. Beitr. geol. Karte Schweiz, n. f. 39. (Literature, iv. 14 entries. 1897-1912. Regional.)
- 2586 BLUMENTHAL, MORITZ. Geologie der Ringel-Segnesgruppe. Bern, 1911, 71 pp. Beitr. geol. Karte Schweiz, n. f. 33. (Literature, 1-2. 34 entries. 1840-1911. Regional.)
- 2587 BÖHNDEL, E. Die obere Süsswassermolasse in der Umgebung des Untersees (Bodensee). Baden. Geol. Landesanst., Mitth. 8, 1920: 259-260. (25 entries. 1857-1913. Regional.)
- 2588 BONARD, A. Etude pétrographique des roches éruptives du soubassement cristallin des Dents de Morcles-Dents du Midi. Lausanne, Univ. Lab. géol., Bull. 1, 1901: [76-87]. (35 entries. 1821-93. Regional.)
- 2589 BRAUN, L. Geologische Beschreibung von Blatt Frick (1: 25,000) im Aargauer Tafeljura. Naturf. Gesell. Basel, Verh. 31, 1919-20: 238-242. (95 entries. 1821-1920. Regional.)
- 2590 BROCKMANN-JEROSCH, H. Die fossilen Pflanzenreste des glazialen Delta bei Kaltbrunn... St. Gallen, 1910, 189 pp. (Literature, 181-187. 91 entries. 1838-1908. Regional.)
- 2591 BUXTORF, AUGUST. Geologie der umgebung von Gelterkinden im Basler Tafeljura. Bern, 1901, 106 pp. Beitr. geol. Karte Schweiz, n. f. 11. (Literature, vii-ix. 50 entries. 1821-1900. Regional.)
- 2592 BUXTORF, AUGUST, and others. Geologische Beschreibung des Weissensteintunnels und seiner Umgebung. . . . Bern, 1908, 147 pp. Beitr. geol. Karte Schweiz, n. f. 21. (Literature, ix-xii. 60 entries. 1838-1907. Regional.)
- 2592a BUXTORF, A[UGUST] and others. Programm für die Exkursionen der Schweiz. Geologischen Gesellschaft in die Umgebung von Basel, das Clos du Doubs und den Kaiserstuhl. Eclogae Geol. Helv., 11, 1910: 306-309. (44 entries. 1932-1910. Regional.)
- 2593 CHRIST, PETER. Geologische Beschreibung des Klippengebietes Stanserhorn-Arvisgrat am Vierwaldstättersee. Bern, 1920, 62 pp. Beitr. geol. Karte Schweiz, n. f. 12. (Literature, v-viii. 88 entries. 1834-1919. Regional.)
- 2594 CLERC, MODESTE. Étude monographique des fossiles du Dogger de quelques gisements classiques du Jura neuchatelois et vaudois. Genève, 1904, 108 pp. Soc. paléont. suisse, Mém. 31. (Literature, 106-108. 67 entries. 1812-1902. General.)
- 2595 CLOOS, HANS. Tafel- und Kettenland im Basler Jura und ihre tektonischen Beziehungen nebst Beiträgen zur Kenntnis des Tertiärs. N. J. f. Min., B. B. 30, 1910: 105-107. (22 entries. 1867-1908. Regional.)
- 2596 CORNELIUS, H. P. Über die Stratigraphie und Tektonik der sedimentären Zone von Samaden. Beitr. geol. Karte Schweiz, n. f. 45, 1914: 42. (25 entries. 1839-1914. Regional.)
- 2597 DELHAES, WILHELM, and GERTH, HEINRICH. Geologische Beschreibung des Kettenjura zwischen Reigoldswil (Baselland) und Oensingen (Solethurn). Geol. u. paläont. Abh., 11, hft. 1, 1912: 93-96. (81 entries. 1838-1910. Regional.)
- 2597a *DESBUISSONS, LÉON. La vallée de Binn (Valais). Étude géographique, géologique, minéralogique et pittoresque. Paris, Lausanne, 1909, 327 pp. (Bibliographies interspersed.)
- 2598 DISLER, CARL. Stratigraphie und Tektonik des Rotliegenden und der Trias beiderseits des Rheines zwischen Rheinfeldern und Augst. Naturg. gesell. Basel, Verh. 25,

*Not seen.

- 1914: 93-95. (41 entries. 1821-1913. Regional.)
- 2598a FAVRE, JULES. Description géologique des environs du Locle et de La chaux de-Fonds. *Eclogae Geol. Helv.*, 11, 1911: 469-475. (116 entries. 1837-1910. Regional.)
- 2599 FREI, ROMAN. Monographie des schweizerischen Deckenschotter. Bern, 1912, 182 pp. (Literature, iv-viii. 135 entries. 1821-1912. Regional.)
- 2600 FREI, ROMAN. Über die Ausbreitung der Diluvialgletscher in der Schweiz. *Beitr. geol. Karte Schweiz*, n. f. 41, 1912: 36-38.
- 2601 GOGARTEN, EM., and HAUSWIRTH, WALT. Bibliographie géologique de la Suisse pour les années 1900 à 1910. Berne, 1913, 412 pp. *Matér. carte géol. Suisse*, n. s. 40. (1900-10. Regional.)
- 2601a GUTZWILLER, A. Beitrag zur Kenntnis der Tertiärbildungen der Umgebung von Basel. *Naturf. Gesell. Basel, Verh.* 9, 1890: 184-185. (23 entries. 1824-88. Regional.)
- 2602 GUTZWILLER, A. Die eocänen Süsswasserkalke im Plateaujura bei Basel. Zürich, 1906, [36] pp. *Schw. paläont. Gesell., Abh.* 32. (Literature, 3-4. 32 entries. 1820-1905. Regional.)
- 2603 GUTZWILLER, A., and GREPPIN, ED. Erläuterungen zur Geologischen Karte von Basel. I. Teil: Gemp plateau und unteres Birstal 1: 25,000 (Spezialkarte Nr. 77). Zürich, 1916, 56 pp. *Geol. Karte Schweiz, Erläut.* 18. (Literature, 8-12. 50 entries. 1819-1915. Regional.)
- 2604 HEIM, ALBERT. Geologie der Schweiz. Band I. Leipzig, 1919, 704 pp. (Literature, through the text. Regional.)
- 2605 HEIM, ALBERT. Das Säntisgebirge. Bern, 1905, 653 pp. *Beitr. geol. Karte Schweiz*, n. f. 16. (Literature, 12-13. 30 entries. 1833-1904. Regional.)
- 2606 HEIM, ARNOLD. Monographie der Churfürsten-Mattstock-Gruppe. I, III. Bern, 1910-16. *Beitr. geol. Karte Schweiz*, n. f. 20. (Literature, I, 1-6. III, 573. 119 entries. 1808-1916. Regional.)
- 2607 HEIM, ARNOLD, and HARTMANN, ADOLF. Untersuchungen über die petrofführende Molasse der Schweiz. Bern, 1919, 95 pp. *Beitr. geol. Karte Schweiz. Geotech. ser. 6.* (Literature, 4, 13, 26, 41, 43-44, 53, 63. 57 entries. 1789-1916. Regional.)
- 2608 HEIM, ALBERT, and ARNOLD. Der kontakt von gneiss und mesozoikum am nordrand des Aarmassivs bei Erstfeld. *Naturf. Gesell. Zurich, Vier.* 62, 1917: 450-451. (22 entries. 1842-1916. Regional.)
- 2609 HENNY, GERHARD. La géologie des environs de Montreux. Lausanne, Univ. Lab. géol., Bull. 23, 1918: 8-12. (41 entries. 1784-1913. Regional.)
- 2609a *HORN, M. G. W. Über die ladinische knollenkalk-stufe der Südalpen. Breslau, 1914, 105 pp. (Literaturnachweis: 88-92.)
- 2609b HUENE, F. VON. Geologische Beschreibung der gegend von Liestal im Schweizer Tafeljura. *Naturf. Gesell. Basel, Verh.* 12, 1900: 298-299. (15 entries. 1821-98. Regional.)
- 2610 HUG, J. Geologie der nördlichen Teile des Kantons Zürich und der angrenzenden Landschaften. Bern, 1907, 127 pp. *Beitr. geol. Karte Schweiz*, n. f. 15. (Literature, ix-xii. 63 entries. 1776-1907. Regional.)
- 2610a HUMMEL, K. L. Die Tektonik des Elsgarus, Berner Tafeljura. *Naturf. Gesell. Freiburg i. B., Ber.* 20, 1914: 77-81. (88 entries. 1836-1912. Regional.)
- 2611 JEANNERET, ALPH. Monographie géologique des Tours d'Ai et des régions avoisinantes (Prealpes vaudoises). . . . Berne, 1912-18, 701 pp. *Matér. carte géol. Suisse*, n. s. 34. (Bibl., 45-60, xv-xvi. 427 entries. 1584-1918. Regional.)
- 2612 KELLER, W. A. Die autochthone Kreide auf Bifertenstock und Selbsanft. Bern, 1912, 20 pp. *Beitr. geol. Karte Schweiz*, n. f. 42. (Literature, 20. 14 entries. 1853-1912. Regional.)
- 2612a *KEMMERLING, G. L. L. Geologische Beschreibung der Ketten von Vellerat und Moutier. Freiburg i. B., 1918.
- 2613 KOENIGSBERGER, J. Über alpine Minerallagerstätten. München, 1919, 108 pp. *Akad. Wissensch., München, Abh.* 28, 12 abt. (Literature, 17-27. 103 entries. 1546-1917. Regional.)

*Not seen.

- 2614 LAGOTALA, HENRI. Étude géologique de la région de la Dôle: La Dôle, Noirmont, Saint-Cergue, Arzier, Trélex, Nord de la Rippe, etc. 1913-17. Berne, 1920, 39 pp. Matér. carte géol. Suisse. n. s. 46, pt. 4. (Bibl., vi. 18 entries. 1787-1918. Regional.)
- 2615 LEHNER, ERNST. Geologie der Umgebung von Bretzwil im nord-schweizerischen Juragebirge. Bern, 1920, 61 pp. Beitr. geol. Karte Schweiz. n. f. 47-II. (Literature, V-VI. 25 entries. 1870-1916. Regional.)
- 2616 LITTERATUR zur physischen Landeskunde Graubündens. Mit Nachträgen 1910, 1911. Naturf. Gesell. Graubündens, Jahresh. 53, 1912: 124-194. (ca 200 entries. 1910-11. Regional.)
- 2616a MÜHLBERG, F. Bericht über die Exkursionen der Schweizerischen geologischen gesellschaft in das Grenzgebiet zwischen dem Ketten- und den Tafel-Jura . . . Eclogae Geol. Helv., 7, 1902: 153-55. (36 entries. 1838-1900. Regional.)
- 2617 NIGGLI, PAUL. Die Chloritoid-schiefer und die sedimentäre Zone am Nordostrande des Gott-hardmassives. Bern, 1912, 93 pp. Beitr. geol. Karte Schweiz. n. f. 36. (Literature, 91-93. 87 entries. 1862-1911. Regional.)
- 2618 PANNEKOEK, J. J. Geologische Aufnahme der Umgebung von Seelisberg am Vierwaldstätter-see. Bern, 1905, 25 pp. Beitr. geol. Karte Schweiz. n. f. 17. (Literature, [2]. 6 entries. 1829-93. Regional.)
- 2619 PIPEROFF, CHR. Geologie des Calanda . . . Bern, 1897, 66 pp. Beitr. geol. Karte Schweiz. n. f. 7. (Literature, vii-viii. 34 entries. 1827-95. Regional.)
- 2620 RABOWSKI, F. Les Préalpes entre le Simmental et le Diemtigtal. Fasc. I. Berne, 1920, 130 pp. Matér. carte géol. Suisse. n. s. 35. (Bibl., 2-9. 219 entries. 1620-1918. Regional.)
- 2621 ROLLIER, LOUIS. Geologische Bibliographie der Schweiz für das XIX. Jahrhundert (1770-1900). 2 vols. Berne, 1907-08. 1025 pp. Matér. carte géol. Suisse. 29. (1770-1900. Regional.)
- 2621a *ROLLIER, LOUIS. Revision de la Stratigraphie et de la Tectonique de la Molasse au nord des Alpes en général et de la Molasse sub-alpine suisse en particulier. Soc. Helv. sci. nat., Nouv. Mém. 46-1, 1911: 3-15.
- 2622 SANDBERG, C. G. S. Études géologiques sur le massif de la Pierre à Voir (Bas-Valais). Paris, 1905, 132 pp. (Bibl., 11-12. 114 entries. 1779-1905. Regional.)
- 2623 SARASIN, CHARLES. Liste bibliographique des travaux concernant la géologie de la Suisse. . . Arch. sci. phys. nat.: 1901-1902 (4), vol. 17, 224-232, 345-352. 115 entries. 1903, vol. 18, 626-632. 91 entries. 1904, vol. 23, 311-320. 123 entries. 1905, vol. 23, 520-528, 116 entries. 1906, vol. 25, 94-104. 143 entries. 1907, vol. 26, 564-576. 176 entries. 1910, vol. 34, 468-480. 174 entries. 1911, vol. 34, 576-588. 173 entries. 1912, vol. 37, 180-190. 136 entries. 1913, vol. 40, 546-555. 131 entries. 1915, vol. 46, 259-265. 89 entries. 1916, (5), vol. 1, 605-612. 101 entries. (1568 entries. 1901-16. Regional. No bibliographies given for the years 1908, 1909, 1914.)
- 2624 *SARASIN, CHARLES. Principaux travaux de géologie suisse pendant d'année 1900. (Aperçu sommaire.) Suisse Universitaire, Genève, 7, 1902: 137-151.
- 2625 SARASIN, CHARLES. Revue géologique suisse pour l'année. . . Eclogae Geol. Helv.: 1902, vol. 7, 601-737. 1903-1904, vol. 8, 225-364, 569-726. 1905-1906, vol. 9, 159-356, 585-756. 1907-1908, vol. 10, 293-476, 577-724. 1909-1910, vol. 11, 121-256, 519-706. 1911, vol. 12, 265-451. 1912-1913, vol. 13, 5-168, 537-684. 1914, vol. 14, 369-477. 1915-1916, vol. 15, 1-147, 309-462. 1917, vol. 16, 293-366. (1902-17. Regional.) For 1898-1901 see 2627.
- 2626 SCHAAD, ERNST. Die Juranagelflub. Bern, 1908, 51 pp. Beitr. geol. Karte Schweiz. n. f. 22. (Literature, 4-6. 48 entries. 1821-1906. Regional.)
- 2626a *SCHARDT, HANS. Coup d'oeil sur la géologie et la tectonique des Alpes du canton du Valais. Bulletin Société murithienne des

*Not seen.

- sciences naturelles du Valais, 35, 1908: 340-354.
- 2626b SCHARDT, H. Programme des excursions de la Société Géologique Suisse qui auront lieu dans le Jura aux environs de Neuchâtel. (*Eclogae Geol. Helv.*, 6, 1899: 70-73. (64 entries. 1852-1899. Regional.)
- 2627 SCHARDT, H. Revue géologique suisse pour l'année. . . . *Eclogae Geol. Helv.*: 1898-99, vol. 6, 181-292, 393-452. 1900-01, vol. 7, 5-102, 477-600. (1898-1901. Regional.) For continuation see 2625.
- 2628 SCHILLER, WALTHER. Geologische Untersuchungen im östlichen Unterengadin. I. Lischannagruppe. *Naturf. Gesell. Freiburg i. B.*, Ber. 14, 1904: 107-110. (57 entries. 1837-1903. Regional.)
- 2629 SCHMIDT, C. Bericht über die Eisenerzvorräte der Schweiz. In *Iron ore resources of the world*. I, 1910: 116-118, 123, 127-128, 130, 131, 133, 136-137, 139. (131 entries. 1788-1909. Regional.)
- 2630 SCHMIDT, C., and PREISWERK, H. Erläuterungen zur geologischen Karte der Simplongruppe in 1: 50,000. . . . Zurich, 1908, 72 pp. *Geol. Karte Schweiz.*, Erlaut. 6. (Literature, 70-71. 21 entries. 1844-1908. Regional.)
- 2631 SCHNEIDER, RUDOLF. Geologie der Schrattenfluh im Kanton Luzern. Bern, 1913, 30 pp. *Beitr. geol. Karte Schweiz. n. f.* 43. (Literature, v-vi. 39 entries. 1781-1912. Regional.)
- 2631a SCHUH, FR. Geologische Beschreibung du Gegend von Saignelégier und Les Pommerats. *Deutsch. geol. Gesell., Zeit.* 66, 1914: 69-70. (23 entries. 1861-1911. Regional.)
- 2632 SOCIÉTÉ GÉOLOGIQUE DE FRANCE. Liste des principales publications concernant les régions visitées par la société Suisse, partie du Canton de Berne limitrophe de la France. *Its Bull.* 3d ser. 25, 1897: 918-919. (18 entries. 1832-96. Regional.)
- 2633 SPITZ, ALBRECHT, and DYHRENFURTH, GÜNTER. Monographie der Engadiner Dolomiten zwischen Schuls, Scans und dem Stifserjoch. Bern, 1915, 235 pp. *Beitr. geol. Karte Schweiz, n. f.* 44. (Literature, 1-10, 234-235. 370 entries. 1814-1914. Regional.)
- 2634 STAUB, RUDOLF. Petrographische Untersuchungen im westlichen Berninagebirge. *Naturf. Gesell. Zürich, Vier.* 60, 1915: 334-336. (77 entries. 1839-1914. Regional.)
- 2635 STAUB, WALTHER. Geologische Beschreibung der Gebirge zwischen Schächental und Maderanertal im Kanton Uri. Bern, 1911, 84 pp. *Beitr. geol. Karte Schweiz. n. f.* 32. (Literature, vii-viii. 34 entries. 1842-1911. Regional.)
- 2635a *SUTER, HANS. Geologische Untersuchungen in der Umgebung von Les Convers—Vue des Alpes (Canton des Neuchâtel). Borna-Leipzig, 1920, 45 pp. (*Literaturverzeichnis*: 43-45.)
- 2636 SUTER, RUDOLF. Geologie der Umgebung von Maisprach (Schweizerischer Tafeljura). *Naturf. Gesell. Basel, Verh.* 26, 1915: 63-64. (34 entries. 1821-1914. Regional.)
- 2637 SWIDERSKI, BOHDAN. La partie occidentale du massif de l'Aar entre la Lonza et la Massa. . . . Berne, 1919, 68 pp. *Matér. carte géol. Suisse. n. s.* 47, pt. 1. (*Bibl.*, vi-viii. 75 entries. 1836-1919. Regional.)
- 2638 TARNUZZER, CHR., and GRUBENMANN, U. Beiträge zur Geologie des Unterengadins. . . . *Beitr. geol. Karte Schweiz. n. f.* 23. (Literature, vii-ix. 90 entries. 1837-1906. Regional.)
- 2638a *TARNUZZER, C., and others. Notice sur quelques gisements métallifères du canton des Grisons, Suisse. Coire, 1900, 39 pp. (Contains bibliographies.)
- 2639 VOSSELER, PAUL. Morphologie des Aargauer Tafeljura. *Naturf. Gesell. Basel, Verh.* 29, 1918: 259-263. (84 entries. 1867-1917. Regional.)
- 2640 WILCKENS, OTTO. Neuere Fortschritte in der geologischen Erforschung Graubündens. *Geol. Rundsch.*, 3, 1912: 15-17. (32 entries. 1905-10. Regional.) See 147, 160, 161, 162, 178, 182, 183, 188, 191, 195, 226, 754, 848, 849, 1074, 1511e, 1514a, 1519, 1801, 2111, 2523, 2525.

SYNGENITE.

- 2641 SCHREIBER, HENRICO. Beitrag zur Kenntnis des Syngenits. N. J. f.

*Not seen.

Min., B. B. 37, 1914: 283-284. (19 entries. 1850-1911. General.)

SYRIA.

- 2642 BLANKENHORN, MAX. Syrien, Arabien und Mesopotamien. Heidelberg, 1914, 159 pp. Handb. reg. Geol., 17 heft. (Literature, 152-157. 191 entries. 1822-1913. Regional.)

- 2643 FINCKH, LUDWIG. Beiträge zur Kenntniss der Gabbro- und Serpentinesteine von Nord-Syrien. Deutsch. geol. Gesell., Zeit. 50, 1898: 79-81. (49 entries. 1838-93. Regional.)

- 2644 TOLL, I. M. The mineral resources of Syria. Eng. and Min. Journ., 112, 1921: 851-852. (43 entries. 1886-1920. Regional.)

- 2645 VAN INGEN, GILBERT. Fossils and rocks collected in Syria. Repr. from "The Jordan Valley and Petra" by William Libbey and Franklin E. Hoskins. N. Y., 1905: 369-370. (13 entries. 1846-91. Regional.)

See 398.

TALC. See 315, 1740a.

TANGANYIKA TERRITORY.

- 2646 TORNAU, [FRITZ]. Die nutzbaren Mineralvorkommen, insbesondere die Goldlagerstätten Deutsch-Ostafrikas. Deutsch. geol. Gesell., Zeit. 59, 1907: Monatsb.: 75. (12 entries. 1894-1906. Regional.)

See 978.

TANTALUM. See 2293.

TASMANIA.

- 2647 REID, A. M. The Mount Pelion mineral district. Hobart, 1919, 84 pp. Tasmania Geol. Surv., Bull. 30. (Literature, [4]. 3 entries. 1893-1907. Regional.)

- 2647a TWELVETREES, W. H. Catalogue of publications issued by the government of Tasmania, relating to the mines, minerals, and geology of the state to 31st December, 1914. Hobart, 1915, 28 pp. Tasmania Geol. Surv., Bull. 22. (306 entries. 1861-1914. Regional.)

- 2648 TWELVETREES, W. H. The Mangana goldfield. Hobart, 1907, 36 pp. Tasmania Geol. Surv., Bull. 1. (Literature, [5]-6. 3 entries. 1869-99. Regional.)

- 2649 TWELVETREES, W. H. The Scamander mineral district. Hobart, 1911, 63 pp. Tasmania Geol. Surv., Bull. 9. (Literature, 3-4. 5 entries. 1861-1897. Regional.)

- 2650 TWELVETREES, W. H. The tasmanite shale fields of the Mersey district. Hobart, 1911, 123 pp. Tasmania Geol. Surv., Bull. 11. (Literature, [4]-10. 18 entries. 1852-1910. Regional.)

- 2651 TWELVETREES, W. H., and WARD, L. K. The ore-bodies of the Zeehan field. Hobart, 1910, 163 pp. Tasmania Geol. Surv., Bull. 8. (Literature, [7]-8. 15 entries. 1884-1904. Regional.)

See 1590, 2649, 2687, 2823.

TECTONICS.

- 2652 KRÜMMER, ADOLF. Historische Entwicklung und Definition der hauptsächlichsten tektonischen Begriffe in Bergbau und Geologie. Zeit. f. prak. Geol., 20, 1912: 249-265. (120 entries. 1810-1906. General.)

See 186, 187, 189, 192, 318, 658, 947, 975a, 1088b, 1171, 1177, 1178, 1180a, 1192, 1204, 1362, 1402, 1410a, 1510, 1511g, 1920, 1944, 2209b, 2234, 2340, 2407, 2408, 2413, 2451, 2551, 2554, 2584, 2592, 2595, 2596, 2597, 2599, 2608, 2610a, 2612a, 2626a, 2786, 2852, 2881, 2886, 2906, 2909.

See also FAULTS, VOLCANOES and VULCANOLOGY.

TEETH.

- 2653 OSBORN, H. F. Evolution of mammalian molar teeth to and from the triangular type. N. Y., 1907, 250 pp. (Bibl., 240-245. 106 entries. 1869-1906. General.)

- 2654 OSBORN, H. F. Trituberculy: a review dedicated to the late Professor Cope. n. p. [1897], pp. 993-1016. (Bibl., 1015-1016. 17 entries. 1835-94. General.)

TENNESSEE.

- 2655 COCKRILL, ELIZABETH. Bibliography of Tennessee geology, soils, drainage, forestry, etc., with subject index. Nashville, 1911, 119 pp. Tenn. Geol. Surv., Bull. 1-B. (ca 1100 entries. 1819-1909. Regional.)

- 2656 DUNBAR, C. O. Stratigraphy and correlation of the Devonian of western Tennessee. Am. Journ. Sci., 4th ser. 46, 1918: 755-756. (14 entries. 1855-1914. Regional.)

- 2657 GLENN, L. C. Underground waters of Tennessee and Kentucky west of Tennessee river and of an adjacent area in Illinois. Washington, 1906, 173 pp. U. S. Geol. Surv., Water-supply Paper 164.

- (Bibl., 163-164. 50 entries. 1856-1905. Regional.)
- 2657a JARVIS, R. P. The valley and mountain iron ores of east Tennessee. *Res. Tenn.*, 2, no. 9, 1912: 358-360. *Tenn. Geol. Surv.*, Bull. 2-C. (8 entries. 1869-1908. Regional.)
- 2658 PURDUE, A. H. The minerals of Tennessee, their nature, uses, occurrence, and literature. (Literature by Elizabeth Cockrill). *Res. Tenn.*, 3, no. 4, 1913: 183-230. (412 entries. 1842-1913. Regional.)
See 811, 859, 865, 2837, 2920.
- TEPRITE.** See 2145.
- TERRA ROSSA.** See 1565.
- TERRACE FORMATIONS.**
- 2659 CHAPUT, E. Recherches sur les terrasses alluviales de la Loire et de ses principaux affluents. Lyon, 1917, 303 pp. (Bibl., 285-300. 295 entries. 1827-1916. Regional.)
- 2660 DAVIS, W. M. River terraces in New England. *Harvard Univ. Mus. Comp. Zool.*, Bull. 38. *Geol. ser.* 7, no. 7, 1902: 346. (8 entries. 1857-99. General.)
- 2661 FISHER, E. F. Terraces of the West River, Brattleboro, Vermont. *Boston Soc. Nat. Hist.*, *Proc.* 33, 1906: 42. (9 entries. 1846-1904. Regional.)
- 2662 GALDIERI, AGOSTINO. Le terrazze orografiche dell'alto Picentino a nord-est di Salerno. *Soc. geol. ital.*, *Boll.* 29, 1910: 111-116. (93 entries. 1871-1910. General.)
- 2663 JUNGBLUTH, F. A. Die Terrassen des Rheins von Andernach bis Bonn. *Naturh. Ver. preuss. Rheinl.*, *Verh.* 73, 1918: 7-12. (98 entries. 1835-1914. Regional.)
- TERTIARY.**
- 2664 BUCHER, WALTER. Beitrag zur geologischen und paläontologischen Kenntnis des jüngeren Tertiärs der Rheinpfalz. *Geogn. Jahresh.* 26, 1913: 3-8. (184 entries. 1845-1911. Regional.)
See 100, 200, 205, 242, 243, 265, 272a, 324, 376, 386a, 452, 482, 489, 543, 546, 547, 590, 600, 785a, 854, 993, 1002, 1105, 1117a, 1119, 1140, 1147, 1150, 1167, 1168, 1186, 1187, 1334, 1383, 1427a, 1434, 1468, 1495, 1497a, 1507, 1511e, 1606, 1607, 1612, 1613, 1625, 1626, 1627, 1629, 1710, 1778, 1780, 1782, 1794, 1864, 1947, 1950, 1963, 2058, 2061, 2085, 2088, 2105, 2122, 2234, 2248, 2251, 2254, 2289, 2341, 2346, 2348, 2354, 2417, 2480, 2492, 2514, 2517, 2526, 2581, 2595, 2601a, 2798, 2803, 2815, 2860, 2885, 2902, 2906.
- TEUTOBURGER WALD.** See **WEST-PHALIA.**
- TEXAS.**
- 2665 ADKINS, W. S. The Weno and Pawpaw formations of the Texas Comanchean. Austin, Texas, 1918, 172 pp. *Texas Univ. Bull.* 1856. (Bibl., 146-147. 23 entries. 1869-1920. Regional.)
- 2666 ADKINS, W. S., and WINTON, W. M. Paleontological correlation of the Fredericksburg and Washita formations in north Texas. Austin, 1919, 128 pp. *Texas Univ. Bull.* 1945. (Bibl., 81-84. 95 entries. 1834-1919. Regional.)
- 2667 BAKER, C. L. Geology and underground waters of the northern Llano Estacado. Austin, Texas, 1915, 225 pp. *Texas Univ. Bull.* 1915: 57. (Bibl., 36. 16 entries. 1890-1915. Regional.)
- 2668 GORDON, C. H. Geology and underground water of northeastern Texas. Washington, 1911, 78 pp. *U. S. Geol. Surv.*, Water supply Paper 276. (Bibl., 10-11. 15 entries. 1888-1909. Regional.)
- 2669 HENDERSON, C. W. Gold, silver, copper, lead, and zinc in Texas in 1914. (Mines report.) *U. S. Geol. Surv.*, *Min. Res.* 1914-I, 1916: 233-238. (37 entries. 1885-1913. Footnotes.)
- 2670 RICHARDSON, G. B. Description of the El Paso quadrangle, Texas. Washington, 1908, 11 pp. *U. S. Geol. Surv.*, *Geol. Atlas* 166. (Bibl., 11. 12 entries. 1848-1907. Regional.)
- 2671 SIMONDS, F. W. The geography of Texas, physical and political. Boston, 1905, 237 pp. (Works, v-viii. 36 entries. 1890-1904. Regional.)
- 2672 SIMONDS, F. W. A record of geology of Texas for the decade ending December 31, 1896. *Texas Acad. Sci.*, *Trans.* 3, 1900: 17-296. (466 entries. 1887-96. Regional.)
- 2672a WHITNEY, F. L. Fauna of the Buda limestone. *Texas Acad. Sci.*, *Trans.* 12, 1913: [7]. (20 entries. 1840-1906. General.)
See 218, 414, 628, 655, 740, 859, 1792, 2016, 2121, 2322, 2379, 2920.

THAUMASITE.

- 2673 BUTLER, B. S., and SCHALLER, W. T. Thaumassite from Beaver County, Utah. *Am. Journ. Sci.*, 4th ser. 31, 1911: 134. *Zeit. f. Kryst.*, 49, 1911: 238. (11 entries. 1878-1908. General.)
- 2674 SCHALLER, W. T. Mineralogical notes. Series 2. Washington, 1912, 115 pp. *U. S. Geol. Surv., Bull.* 509. (Bibl., 113. 12 entries. 1878-1911. General.)

THERALITE. *See* 2145.THERMAL SPRINGS. *See* SPRINGS.THORIUM. *See* 1806.**THURINGIA.**

- 2675 *PILTZ, ERNST. Die Gliederung der Trias bei Jena. Eine Uebersicht für geologische Exkursionen, nebst einem Verzeichnis der Literatur über die Trias Ostthuringens. 2d. ed. Jena, 1906. (Literature, 21-24.)
- 2676 WALTHER, KARL. Beiträge zur Geologie und Paläontologie des älteren Paläozoicums in Ostthuringen. 1, 2. *N. J. f. Min.*, B. B. 24, 1907: 226-237. (122 entries. 1813-1905. Regional.)

TIBET.

- 2677 HAYDEN, H. H. The geology of the provinces of Tsang and Ü in central Tibet. *India Geol. Surv., Mem.* 36-II, App. B. 1907: 71-72. (25 entries. 1800-1906. Regional.)

TIMOR.

- 2678 WANNER, J. Geologie von Westtimor. *Geol. Rundsch.*, 4, 1913: 136-150. (22 entries. 1865-1912. Footnotes.)
- See* 234, 663, 985, 1794.

TIN AND TIN ORES.

- 2679 BANCROFT, HOWLAND. The tin situation in Bolivia. *Am. Inst. M. E., Trans.* 47, 1914: 189. (9 entries. 1891-1913. Regional.)
- 2680 COLLIER, A. J. The tin deposits of the York region, Alaska. *Washington*, 1904, 61 pp. *U. S. Geol. Surv., Bull.* 229. (Bibl., 55-57. 24 entries. 1814-1903. General.)
- 2681 DAVIES, G. M. Tin ores. *Imp. Inst. Mon. Tin ores*, 1919: 100-111. (227 entries. 1881-1918. General.)
- 2682 FAWNS, SYDNEY. Tin deposits of the world, with a chapter on tin smelting. 3d ed. London, n. d. 306 pp. (Bibl., 297-301. 53 entries. 1877-1909. General.)

- 2683 FERGUSON, H. G., and BATEMAN, A. M. Geologic features of tin deposits. *Econ. Geol.*, 7, 1912: 257-262. (102 entries. 1865-1911. Select.)
- 2684 HESS, F. L. Tin. *U. S. Geol. Surv., Min. Res.* 1908-I, 1909: 776-779. (33 entries. 1908. General.)
- 2684a HESS, F. L., and EVA. Bibliography of the geology and mineralogy of tin. Washington, 1912, 408 pp. *Smith, Misc. Coll.* 58, no. 2. (Bibl., 19-240. 1701 entries. 1630-1910. General.)
- 2685 HESS, F. L., and GRATON, L. C. The occurrence and distribution of tin. *U. S. Geol. Surv., Bull.* 260, 1905: 182-187. (94 entries. 1838-1905. General.)
- 2686 KNOPF, ADOLPH. Tin. *U. S. Geol. Surv., Min. Res.* 1916-I, 1919: 621-622. (18 entries. 1897-1917. Regional.)

- 2686a *RUEB, JAN. Over het verwerken van tinerts. Den Haag, 1913, 131 pp. (Opgave der geraadpleegde litteratur: 9.)

- 2686b STELZNER, A. W. Die Silber-zinnerzlagertstätten Boliviens. Ein Beitrag zur Naturgeschichte des Zinnerzes. *Deutsch. geol. Gesell., Zeit.* 49, 1897: 6-7. (20 entries. 1691-1891. Regional.)

- 2687 WARD, L. K. The tin field of north Dundas. Hobart, 1909, 166 pp. *Tasmania Geol. Surv., Bull.* 6. (Literature, 4-6. 8 entries. 1893-1906. Regional.)
- See* 118, 467, 1104a, 1740a, 2476, 2705, 2833a.

TITANIUM.

- 2688 WATSON, T. L., and TABER, STEPHEN. Geology of the titanium and apatite deposits of Virginia. Charlottesville, 1913, 308 pp. *Va. Geol. Surv., Bull.* III-A. (Bibl., 290-297. 200 entries. 1796-1912. General.)
- See* 2293.

TOGO. *See* 107.**TOURMALINE.**

- 2689 [WOROBIEFF, V. J.] [Krystallographische Studien über Turmalin von Ceylon und einigen anderen Vorkommen.] *Russ. k. min. Gesell., Verh.* 2d ser. 39, 1902: 45-49. (68 entries. 1852-1900. General.)

TRACHYDOLERITE. *See* 2145.TRACHYTE AND QUARTZ FREE PORPHYRY. *See* 2145.**TRANSVAAL.**

- 2690 BROUWER, H. A. Oorsprong en samenstelling der transvaalsche

* Not seen.

- nepheliensyenieten. 's Gravenhage, [1910?], 180 pp. (Literature, 176-178. 27 entries. 1874-1909. Regional.)
- 2691 DU TOIT, A. L. The geology of part of the Transkei. An explanation of Sheet 27 (Cape). (Maclear-Umtata.) Pretoria, 1917, 32 pp. Union S. Afr. Geol. Surv. (Bibl., 28. 5 entries. 1908-16. Regional.)
- 2692 HALL, A. L. The geology of the Barberton gold mining district including adjoining portions of northern Swaziland. Pretoria, 1918, 347 pp. Union S. Afr. Geol. Surv., Mem. 9. (Bibl., [325]-327. 60 entries. 1887-1917. Regional.)
- 2693 HALL, A. L. The geology of the country round Belfast. An explanation of Sheet 16 (Belfast). Pretoria, 1918, [57] pp. Union S. Afr., Geol. Surv. (Bibl., [57]. 18 entries. 1897-1918. Regional.)
- 2694 HALL, A. L. The geology of the country south-west of Lydenburg. An explanation of Sheet 11 (Lydenburg.) Pretoria, 1913, 38 pp. Union S. Afr. Geol. Surv. (Bibl., [35]. 9 entries. 1906-11. Regional.)
- 2695 HALL, A. L. The geology of the Haenertsburg goldfields and surrounding country. An explanation of Sheet 13 (Olifants River). Pretoria, 1914, 62 pp. Union S. Afr. Geol. Surv. (Bibl., [59]-60. 18 entries. 1904-14. Regional.)
- 2696 HALL, A. L. The geology of the Murchison Range and district. Pretoria, 1912, 186 pp. Union S. Afr. Geol. Surv., Mem. 6. (Bibl. 175. 7 entries. 1898-1906. Regional.)
- 2697 HALL, A. L. The geology of the Pilgrims Rest gold mining district. Pretoria, 1910, 158 pp. Transvaal Geol. Surv., Mem. 5. (Bibl., 145-147. 40 entries. 1873-1909. Regional.)
- 2698 HALL, A. L., and HUMPHREY, W. A. The geology of the country round Zeerust and Mafeking including the Malmani goldfields and the lead and zinc deposits south of Zeerust. An explanation of Sheet 5 (Zeerust) and Sheet 6 (Mafeking). Pretoria, 1910, 50 pp. Transvaal Geol. Surv. (Bibl., [49]-50. 16 entries. 1874-1908. Regional.)
- 2699 HUMPHREY, W. A. The geology of Rustenburg and the surrounding district. An explanation of Sheet 4 (Rustenburg). Pretoria, 1908, 22 pp. Transvaal Geol. Surv. (Bibl., 22. 17 entries. 1854-1907. Regional.)
- 2700 HUMPHREY, W. A. The geology of the country northwards from Zeerust. An explanation of Sheet 9 (Marico). Pretoria, 1911, 30 pp. Union S. Afr. Geol. Surv. (Bibl., [27]. 10 entries. 1904-10. Regional.)
- 2701 HUMPHREY, W. A. The geology of the Pilandsberg and the surrounding country. An explanation of Sheet 12 (Pilandsberg). . . . Pretoria, 1914, 32 pp. Union S. Afr. Geol. Surv. (Bibl., 29-30. 19 entries. 1904-11. Regional.)
- 2702 KYNASTON, H. The geology of a portion of the Bushveld north of Pretoria. An explanation of Sheet No. 2 (Pienaars River). Pretoria, 1907, 28 pp. Transvaal Geol. Surv. (Literature, 28. 9 entries. 1895-1907. Regional.)
- 2703 KYNASTON, H. The geology of the country surrounding Pretoria. An explanation of Sheet 1. Pretoria, 1907, 38 pp. Transvaal Geol. Surv. (Literature, 37-38. 28 entries. 1897-1906. Regional.)
- 2704 KYNASTON, H., and HUMPHREY, W. A. The geology of the northern portions of the districts of Marico and Rustenburg. An explanation of Sheet No. 14 (Witfontein) and Sheet No. 15 (Crocodile Pools). Pretoria, 1920, 38 pp. Union S. Afr. Geol. Surv. (Bibl., 23, 38. 15 entries. 1904-12. Regional.)
- 2705 KYNASTON, H., and MELLOR, E. T. The geology of the country round Warmbaths and Nylstroom including the Rooiberg tinfields. An explanation of Sheet 10 (Nylstroom). Pretoria, 1912, 52 pp. Union S. Afr. Geol. Surv. (Literature, [49]-50. 21 entries. 1898-1910. Regional.)
- 2706 MELLOR, E. T. The geology of the neighbourhood of Middelburg, and of the country westwards as far as Bronkhorst Spruit. An explanation of Sheet 3 (Middelburg). Pretoria, 1907, 30 pp. Transvaal Geol. Surv. (Literature, 30. 18 entries. 1896-1907. Regional.)
- 2707 MELLOR, E. T. The geology of the Transvaal coal-measures with special reference to the Witbank

- coal-field. Pretoria, 1906, 60 pp. Transvaal Geol. Surv., Mem. 3. (Literature, 56-58. 29 entries. 1887-1906. Regional.)
- 2708 MELLOR, E. T. The geology of the Witwatersrand. An explanation of the geological map of the Witwatersrand goldfield. Pretoria, 1917, 46 pp. Union S. Afr. Geol. Surv. (Literature, [43]-46. 63 entries. 1891-1916. Regional.)
- 2709 MOLENGRAAFF, G. A. F. Géologie de la république Sud-Africaine du Transvaal. Soc. géol. France, Bull. 4th ser. 1, 1901: 90-92. (54 entries. 1856-99. Regional.)
See 841, 1590, 1722.
- TRANSYLVANIA.** See RUMANIA.
- TRANSYLVANIAN ALPS.** See 172.
- TRAVERTINE.**
- 2710 EMIG, W. H. Travertine deposits of Oklahoma. Norman, 1917, 76 pp. Okla. Geol. Surv., Bull. 29. (Bibl., 74-76. 45 entries. 1827-1916. General.)
- TREPOSTOMATA.**
- 2711 LEE, G. W. The British Carboniferous Trepostomata. London, 1912, 195 pp. Gt. Brit. Geol. Surv., Mem. Pal. 1, pt. 3. (Bibl., 189-193. 57 entries. 1836-1910. General.)
- TRIASSIC.**
- 2712 DIENER, CARL. Die marinen Reiche der Triasperiod. Akad. Wissensch. Wien, Denk. 92, 1916: 405-549. (361 entries. 1845-1914. General.)
- 2713 FRENTZEN, KURT. Die Flora des Buntsandsteins Badens. Baden Geol. Landesanst., Mitth. 8, 1915: 153-154. (38 entries. 1838-1912. Regional.)
- 2714 SMITH, J. P. The comparative stratigraphy of the marine Trias of western America. Cal. Acad. Sci., Proc. 3d ser. 1, 1904: 409-411. (42 entries. 1845-1903. Regional.)
See 128, 136, 196, 368, 388, 392, 418, 424, 425, 429, 438, 443, 488, 634, 665, 804, 805, 930, 931, 932, 980, 983, 1039, 1050, 1052, 1124, 1126, 1135, 1229, 1280, 1334, 1335, 1357, 1373, 1393, 1399, 1400, 1418, 1435, 1502, 1516, 1557, 1653, 1787, 1855, 1860, 1948, 2093, 2234, 2294, 2306, 2311, 2425, 2457, 2508, 2516, 2598, 2675, 2812, 2901.
- TRILOBITES.**
- 2715 BURLING, L. D. Protichnites and Climactichnites; a critical study of some Cambrian trails. Am. Journ. Sci., 4th ser. 44, 1917: 397-398. (44 entries. 1851-1908. General.)
- 2716 KINGSLEY, J. S. The systematic position of the trilobites. Am. Geol., 20, 1897: 38. (13 entries. 1880-97. General.)
- 2717 POMPECKJ, J. F. Ueber Calymmene Brongniart. N. J. f. Min., 1898-I; 187-250. (126 entries. 1822-97. Footnotes.)
- 2717a RAYMOND, P. E. The appendages, anatomy and relationships of trilobites. Conn. Acad. Arts and Sci., Mim. 7, 1920: 163-69. (128 entries. 1759-1919. General.)
- 2717b RAYMOND, P. E. A new Ceraurus from the Chazy. N. Y. State Mus., Bull. 189, 1916: 142-143. (30 entries. 1872-1915. General.)
- 2718 RAYMOND, P. E. The trilobites of the Chazy limestone. Carnegie Mus. Pittsburgh, Ann. 3, 1905-06: 383-384. (15 entries. 1842-1902. General.)
- 2718a RICHTER, RUDOLF. Beiträge zur Kenntnis devonischer Trilobiten. 3. Beitrag. Senckenb. naturf. Gesell., Abh. 37, hft. 3, 1920: 216-218. (78 entries. 1834-1919. General.)
- 2718b RUEDEMANN, RUDOLF. The cephalic suture lines of Cryptolithus (Trinucleus Auct.). N. Y. State Mus., Bull. 189, 1916: 148. (11 entries. 1852-1915. General.)
- 2719 SCHUMACHER, REINHOLD. Über Trilobitenreste aus dem Unterkarbon im östlichen Teil des Rossbergmassivs in den Südvogesen. Deutsch. geol. Gesell., Zeit. 55, 1903: 433. (16 entries. 1836 1903. General.)
- 2720 WALCOTT, C. D. Cambrian geology and paleontology. No. 6—Olenellus and other genera of the Mesonacidae. Washington, 1910. Smith. Misc. Coll. 53, no. 6. Publ. 1934. (Bibl., 372-378. 102 entries. 1844-1910. General.)
- 2721 WELLER, STUART. The paleontology of the Niagaran limestone in the Chicago area. The Trilobita. Chicago Acad. Sci., Bull. 4-II, 1907: 181-184. (66 entries. 1825-1903. Regional.)
- 2722 WESTERGARD, A. H. Index to N. P. Angelen's Palaeontologia Scandinavica with notes. Lund, 1910, 48 pp. Lunds geol. fältk., Meddel. B. 5. (Bibl., 8-10. 49 entries. 1845-1910. Regional.)
See 607, 1082.

TRINIDAD.

- 2723 CADMAN, JOHN. Mineral resources of Trinidad. *Inst. M. E., Trans.* 35, 1908: 475. (21 entries. 1789-1907. Regional.)
- 2724 GUPPY, R. J. L. The growth of Trinidad. *Canad. Inst., Trans.* 8, 1905: 148-149. (72 entries. 1819-1904. Regional.)

TRIPOLI.

- 2725 LADDOO, R. B. The mining and preparation of tripoli. *U. S. Bur. Mines. Repts. Invest. Nov.* 1920, no. 2190. (13 entries. 1894-1917. Regional.)

See also LIBYA.

TRIPOLITANIA. See LIBYA.**TUNGSTEN.**

- 2726 GEORGE, R. D. The main tungsten area of Boulder county, Colorado. *Colo. Geol. Surv., Rept. 1*, 1909: 96-103. (127 entries. n. d. General.)
- 2727 HESS, F. L. Tungsten. *U. S. Geol. Surv., Min. Res.* 1916-I, 1919: 801-803. (42 entries. 1888-1917. Regional.)
- 2728 RASTALL, R. H., and WILCOCKSON, W. H. Tungsten ores. *Imp. Inst. Mon. Tungsten ores*, 1920: 77-80. (138 entries. 1904-18. Regional.)
- 2729 RUBEL, A. C. Tungsten. Tucson, Arizona, 1915-16, 11 pp. *Ariz. Bur. Mines., Bull. 11. Min. tech.* 5. (19 entries. 1911-13. General.)
- 2730 RUNNER, J. J., and HARTMANN, M. L. The occurrence, chemistry, metallurgy and uses of tungsten with special reference to the Black Hills of South Dakota ... including a bibliography of tungsten, by M. L. Hartmann. *Rapid City*, 1918, pp. 160-255. *S. Dak. Sch. Mines, Bull. 12.* (1328 entries. 1574-1918. General.)
- 2731 VAN WAGENEN, H. R. Tungsten in Colorado. *Colo. Sch. Mines, Bull.* 3, no. 2, 1906: 165-169. (102 entries. n. d. General.)
- 2732 WALKER, T. L. Report on the tungsten ores of Canada. Ottawa, 1909, 56 pp. *Canada Dept. Mines, Mines Br. 25.* (Bibl., 48-50. 29 entries. 1893-1908. Regional.)

See 260, 1096, 2293, 2898, 2899.

TUNICATA.

- 2732a JACKEL, O. Über fragliche Tunicaten aus dem Perm Siciliens. *Paläont. Zeit.*, 2, 1918: 73-74. (11 entries. 1818-1912. General.)

*Not seen..

TUNIS.

- 2733 *BEROLSHEIMER, V. Index général des mines de Tunisie. Tunis, 1909, 156 pp. (Bibl., 138-143.)
- 2733a PERVINQUIÈRE, L. Étude géologique de la Tunisie centrale. Paris, 1903, 359 pp. (Bibl., [3]-10. 187 entries. 1830-1902. Regional.)
- 2734 REUTER, ROBERT. Les ressources minérales de la Tunisie. Nancy, 1913, 344 pp. (Bibl. v-x. 60 entries. 1879-1912. Regional.)

See 667, 1231, 2160a, 2164.

TURKEY. See 1641, 2009b.**TURQUOISE.**

- 2735 POGUE, J. E. The turquoise. A study of its history, mineralogy, geology, ethnology, archaeology, mythology, folklore, and technology. *Nat. Acad. Sci., Mem.* 12, pt. 2, 1915: 136-154. (344 entries. 1300-1912. General.)
- 2736 ZALINSKI, E. R. Turquoise in the Burro Mountains, New Mexico. *Econ. Geol.*, 2, 1907: 492. (11 entries. 1858-1904. Select.)

TURTLES.

- 2737 HAY, O. P. Chelonia. *Geol. Soc. Am., Bull.* 23, 1912: 219-220. (50 entries. 1902-11. General.)
- 2738 HAY, O. P. On the group of fossil turtles known as the Amphicheylidia; with remarks on the origin and relationships of the suborders, superfamilies, and families of Testudines. *Am. Mus. Nat. Hist., Bull.* 21, 1905: 174-175. (35 entries. 1881-1905. General.)
- 2739 VERSLUYS, J. Über die Phylogenie des Panzers der Schildkröten und über die Verwandtschaft der Lederschildröte (*Dermochelys coriacea*). *Paläont. Zeit.*, 1, 1914: 346-347. (37 entries. 1889-1914. General.)
- 2740 WIELAND, G. R. Revision of the Protostegidae. *Am. Journ. Sci.*, 4th ser. 27, 1909: 129-130. (17 entries. 1872-1908. General.)
- 2741 WIELAND, G. R. The skull, pelvis, and probable relationships of the huge turtles of the genus *Archelon* from the Fort Pierre Cretaceous of South Dakota. *Am. Journ. Sci.*, 4th ser. 9, 1900: 250-251. (15 entries. 1872-98. General.)

TYROL. See AUSTRIA. ITALY.**UKRAINIA.**

- 2742 *PRUSEVIC, A. Literatur über Podolien. *Soc. nat. Podolie, Mém.* 2, 1913: 171-179.

- 2743 *PRUSEVIC, A. [Naturwissenschaftliche Bibliographie Podoliens.] Soc. nat. Podolie, Mém. 1, 1912: 99-144.
- 2744 SIEMIRADZKI, JOS. VON. Die paläozoologischen Gebilde Podoliens. Beitr. Paläont. Oesterr.-Ung. 19, 1906: 284-286. (120 entries. 1720-1899. General.)

UNDERGROUND WATERS.

- 2745 ANDRIMONT, RENÉ D', and FRAIPONT, CHARLES. Sur quelques phénomènes dus à la circulation de l'eau dans les roches. Soc. géol. France, Bull. 4th ser. 17, 1917: 81. (9 entries. n. d. General.)
- 2746 BALDWIN-WISEMAN, W. R. The influence of pressure and porosity on the motion of sub-surface water. Geol. Soc. London, Q. J. 63, 1907: 103-104. (30 entries. 1832-1906. General.)
- 2746a CAMACHO, HERIBERTO. Las aguas subterráneas en Tlanalapan, Dto. de Apan, e. de Hidalgo, informe acerca de las aguas subterráneas del valle de Tecamachalco o Valsequillo, e. de Puebla. México, 1920, 54 pp. Mexico Inst. geol., An. 8. (Bibl., 37-38. 8 entries. 1894-1918. Regional.)
- 2747 DOLE, R. B. Use of fluorescein in the study of underground waters. U. S. Geol. Surv., Water-supply Paper 160, 1906: 83-85. (69 entries. 1882-1903. General.)
- 2748 FOURNIER, E. Études sur les projets d'alimentation le captage, la recherche et la protection des eaux potables. France Serv. carte géol., Bull. 94-t. 14 (1902-03): 25-30. (178 entries. 1546-1902. General.)
- 2749 FULLER, M. L. Bibliographic review and index of papers relating to underground waters published by the United States Geological Survey. 1879-1904. Washington, 1905, 128 pp. U. S. Geol. Surv., Water-supply Paper 120. (628 entries. 1879-1904. Regional.)
- 2750 FULLER, M. L., and others. Bibliographic review and index of underground-water literature published in the United States in 1905. Washington, 1906, 130 pp. U. S. Geol. Surv., Water-supply Paper 163. (721 entries. 1905. Regional.)
- 2751 FULLER, M. L. Hydrologic work in eastern United States and publications on ground waters. U. S. Geol. Surv., Water-supply Paper 145, 1905: 24-29. (76 entries. 1883-1905. Regional.)
- 2752 FULLER, M. L. Work of the eastern section of hydrology in 1905, and publications relating to underground waters. U. S. Geol. Surv., Water-supply Paper 160, 1906: 1-8. (128 entries. 1904-05. Regional.)
- 2753 MARTEL, E. A. La spéléologie au XXe siècle. Revue et bibliographie des recherches souterraines de 1901 à 1905. Spelunca 6, 1905-1906, no. 41. I. France: 1-192; Nos. 42-43. II. Europe, Africa, America, Asia, Oceanica: 196-450. Nos. 44-46, Spéléologie appliquée aux sciences; 453-810. (1901-05. Regional.)
- 2754 MEINZER, O. E. Bibliography and index of the publications of the United States Geological Survey relating to ground water. Washington, 1918, 169 pp. U. S. Geol. Surv., Water-supply Paper 427. (454 entries. 1886-1918. Regional.)
- 2755 SLICHTER, C. S. List of papers on the motion of ground waters and related topics. U. S. Geol. Surv., Ann. Rept. 19, 1897-98: 381-384. (77 entries. 1816-86. General.)
See 267, 302, 340, 471, 586, 595, 647, 799, 1024, 1058, 1064, 1065, 1067, 1068, 1456, 1465, 1500, 1542, 1546, 1744, 1809, 1889, 1967, 2322, 2657, 2667, 2668, 2862.

UNGAVA. See 2279.

UNGULATA.

- 2756 DIETRICH, W. O. Über die Hand und den Fuss von Dinotherium. Deutsch. geol. Gesell., Zeit. 68, 1916: Monatsb.: 53. (15 entries. 1854-1911. General.)
- 2757 HOLLAND, W. J., and PETERSON, O. A. The osteology of the Chalicotheroidea with special reference to a mounted skeleton of Moropus elatus Marsh, now installed in the Carnegie Museum. Carnegie Mus. Pittsburgh, Mem. 3, no. 2, 1914: 378-406. (109 entries. 1825-1913. General.)
- 2758 JANENSCH, W. Die Proboscidienschädel der Trinil-Expeditions-Sammlung. In Selenka, Lenore. Die Pithecanthropus-Schichten

*Not seen.

- auf Java. Leipzig, 1911: 195. (18 entries. 1880-1908. Regional.)
- 2759 MARTIN, K. Ueberreste vorweltlicher Proboscider von Java und Banka. Leiden. Geol. R. Mus., Samml. 4, 1884-1889: 22-24. (33 entries. 1829-83. Regional.)
- 2760 NEWTON, E. T. Records of British fossil Elk-remains. Geol. Soc. London, Q. J. 59, 1903: 88-89. (18 entries. 1832-98. Regional.)
- 2761 OSBORN, H. F. Evolution of the Amblypoda. Part I. Taligrada and Pantodonta. Am. Mus. Nat. Hist., Bull. 10, 1898: 217-218. (14 entries. 1877-98. General.)
- 2762 OSBORN, H. F. The four phyla of Oligocene Titanotheres. Am. Mus. Hist., Bull. 16, art. 8, 1902: 108-109. (6 entries. 1887-1902. General.)
- 2763 PETERSON, O. A. Principal literature with reference to new families, genera, species, and subspecies of fossil Artiodactyle of the past ten years. Geol. Soc. Am., Bull. 23, 1912: 168-178. (107 entries. 1899-1911. General.)
- 2764 PETERSON, O. A. A revision of the Entelodontidae. Carnegie Inst. Pittsburgh, Mem. 4, 1909: 149-156. (99 entries. 1848-1909. General.)
- 2765 PONTIER, G. Sur une espèce nouvelle de Paleomastodon (Paleomastodon Barroisi). Soc. géol. Nord, Ann. 36, 1907: 133. (6 entries. 1901-06. Regional.)
- 2766 SCOTT, W. B. The Selenodont Artiodactyles of the Unita Eocene. Wagner Inst. Sci., Trans. 6, 1899: 121. (18 entries. 1869-98. General.)
- 2767 WAGNER, GEORGE. Observations on *Platygonus compressus* Le Conte. Journ. Geol., 11, 1903: 782. (15 entries. 1848-1903. General.)
- UNION OF SOUTH AFRICA. See 314.
See also Constituent states, *e. g.* NATAL. TRANSVAAL.
- UNITED STATES.
- 2768 BLACKWELDER, ELIOT. United States of North America. Heidelberg, 1912, 268 pp. Handb. reg. Geol., 11 heft. (Literature, 249-252. 50 entries. 1818-1910. Regional.)
- 2768a INSTITUTE FOR GOVERNMENT RESEARCH. Service monographs of the United States Government, No. 1. The U. S. Geological Survey; its history, activities and organization. N. Y. 1918, 163 pp. (Bibl. 132-58. 156 entries. 1835-1916. Regional.)
- 2769 STANTON, T. W. A comparative study of the Lower Cretaceous formations and faunas of the United States. Journ. Geol., 5 1897: 610-624. (232 entries. 1823-97. Regional.)
- 2770 U. S. GEOLOGICAL SURVEY. Guide-book of the western United States. Part A. The Northern Pacific route. . . . Washington, 1915, 212 pp. *Its* Bull. 611. (Papers . . . 197-198. 47 entries. 1893-1913. Regional.)
- 2771 U. S. GEOLOGICAL SURVEY. Guide-book of the western United States. Part B. The Overland route. . . . Washington, 1915, 244 pp. *Its* Bull. 612. (Publ., 230-231. 45 entries. 1868-1915. Regional.)
- 2772 U. S. GEOLOGICAL SURVEY. Guide-book of the western United States. Part C. The Santa Fe route. . . . Washington, 1915, 194 pp. *Its* Bull. 613. (Publ., 179-181. 58 entries. 1886-1914. Regional.)
- 2773 U. S. GEOLOGICAL SURVEY. Guide-book of the western United States. Part D. The Shasta route and Coast Line. . . . Washington, 1915, 142 pp. *Its* Bull. 614. (Publ., 132. 29 entries. 1896-1914. Regional.)
- 2774 VAN HISE, C. R., and LEITH, C. K. The geology of the Lake Superior region. Washington, 1911, 641 pp. U. S. Geol. Surv., Mon. 52. (Bibl., 73-84. 362 entries. 1825-1911. Regional.)
See 89, 89a, 90, 1641, 1740a.
See also CONSTITUENT STATES.
- URANIUM.
- 2775 GEORGE, R. D. A bibliography of uranium and vanadium. Min. Sci., 63, 1911: 241. (57 entries. 1890-1910. General.)
See 2293.
- URANOSPETHITE. See 413.
- URUGUAY.
- 2776 GUILLEMAIN, C. Beiträge zur Geologie Uruguays. N. J. f. Min., B. B. 33, 1912: 208-209. (24 entries. 1830-1911. Regional.)
- 2777 MARSTRANDER, ROLF. Bibliografía de la geología mineralogía y paleontología de la república oriental del Uruguay. Pan-Am. Sci. Cong., Wash. D. C., 2, sect. vii,

- 1917: 659-674. (26 entries. 1812-1916. Regional.)
- 2778 WALTHER, K. Über das Alter und den geologischen Charakter der sogen. Pampasformation in Uruguay. N. J. f. Min., 1914-II: 126-127. (23 entries. 1842-1914. Regional.)

See 2476.

UTAH.

- 2779 ATWOOD, W. W. Glaciation of the Uinta and Wasatch mountains. Washington, 1909, 96 pp. U. S. Geol. Surv., Prof. Paper 61. (Bibl., 8-9. 9 entries. 1871-1907. Regional.)
- 2780 BOUTWELL, J. M. Economic geology of the Bingham mining district, Utah. . . . Washington, 1905. 413 pp. U. S. Geol. Surv. Prof. Paper 38. (Bibl., 99-102. 47 entries. 1811-1901. Regional.)
- 2781 BOUTWELL, J. M. Geology and ore deposits of the Park City district, Utah. Washington, 1912, 231 pp. U. S. Geol. Surv., Prof. Paper 77. (Bibl., 37-41. 85 entries. 1858-1907. Regional.)
- 2782 BUTLER, B. S. Geology and ore deposits of the San Francisco and adjacent districts Utah. Washington, 1913, 312 pp. U. S. Geol. Surv., Prof. Paper 80. (Previous work, 16. 12 entries. 1872-1911. Footnotes.)
- 2783 BUTLER, B. S., LOUGHLIN, G. F., HEIKES, V. C., and others. The ore deposits of Utah. Washington, 1920, 672 pp. U. S. Geol. Surv., Prof. Paper 111. (Bibl., 38-57. 587 entries. 1732-1917. Regional. Other bibliographies given by ranges and districts.)
- 2784 DAVIS, W. M. An excursion to the plateau province of Utah and Arizona. Harvard Univ. Mus. Comp. Zool., Bull. 42. Geol. ser. 6, no. 1, 1903: 49. (7 entries. 1875-1901. Regional.)
- 2785 HINTEZ, F. F. jr. A contribution to the geology of the Wasatch Mountains, Utah. N. Y. Acad. Sci., Ann. 23, 1913: 142-143. (37 entries. 1872-1912. Regional.)
- 2786 HUNTINGTON, ELLSWORTH, and GOLDTHWAIT, J. W. The Hurricane fault in the Toquerville district, Utah. Harvard Univ. Mus. Comp. Zool., Bull. 42. Geol. ser. 6, no. 5, 1904: 256-257. (25 entries. 1875-1903. Regional.)
- 2787 LEITH, C. K., and HARDER, E. C. The iron ores of the Iron Springs

district southern Utah. Washington, 1908, 102 pp. U. S. Geol. Surv., Bull. 338. (Bibl., 97. 20 entries. 1875-1907. Regional.)

- 2788 U. S. GEOLOGICAL SURVEY. Publications of the . . . on metalliferous resources in Utah. Its Min. Res. 1914-I, 1916: 755-756. (31 entries. 1895-1915. Regional.)

See 290, 1089, 1402, 1821, 2379, 2673, 2771, 2920.

VALLEYS.

- 2789 FREY, OSKAR. Talbildung und glaziale Ablagerungen zwischen Emme und Reuss. Schw. naturw. Gesell., N. Denk. 41, 1907: 341-525. (67 entries. 1844-1905. Regional.)
- 2790 GREGORY, J. W. The African rift valleys. Geog. Journ., 56, 1920: 39-41. (65 entries. 1884-1918. Regional.)

VANADIUM.

- 2791 JOSEPH, P. E. Vanadium. Tucson, Arizona, 1915-16, 10 pp. Arizona Bur. Mines, Bull. 18. Min. tech. 9. (13 entries. 1900-13. General.)

See 1740a, 2293, 2775.

VENETIAN ALPS. See 154.

VENEZUELA.

- 2792 GERHARDT, K. Beitrag zur Kenntniss der Kreideformation in Venezuela und Peru (Beiträge zur Geologie und Palaeontologie von Südamerika. V.). N. J. f. Min., B. B. 11, 1897-98: 66-68. (39 entries. 1839-94. Regional.)
- 2793 JIMÉNEZ, GERMÁN. Apuntes sobre la riqueza mineralógica de Venezuela. Pan-Am. Sci. Cong., Wash. D. C. 2d. sect. VII, 1917: 246-247. (39 entries. 1876-1915. Regional.)

See 851, 1590, 2476.

VERMONT.

- 2794 DALE, T. N. The calcite marble and dolomite of eastern Vermont. Washington, 1915, 67 pp. U. S. Geol. Surv., Bull. 589. Vermont State Geol., Rept. 9, 1913-14: 225-226. (Bibl., 8. 5 entries. 1861-1907. Regional.)
- 2795 DALE, T. N. Taconic physiography. Washington, 1905, 52 pp. U. S. Geol. Surv., Bull. 272. (Literature, 10-18. 40 entries. 1794-1902. Footnotes.)
- 2796 MERWIN, H. E. Some late Wisconsin and Post-Wisconsin shorelines of northwestern Vermont. Vermont State Geol., Rept. 6, 1907-08: 137. (7 entries. 1861-1906. Regional.)

- 2797 PERKINS, G. H. A general account of the geology of the Green Mountain region. Vermont State Geol., Rept. 8, 1911-12: 92-100. (135 entries. 1838-112. Regional. Bibliographies which were published in reports for 1903-04, pp. 16-21, and 1905-06, pp. 64-69, are included in the above.)
- 2798 PERKINS, G. H. Tertiary lignite of Brandon, Vermont, and its fossils. Geol. Soc. Am., Bull. 16, 1905: 514. (5 entries. 1853-1904. Regional.)
- 2799 RICHARDSON, C. H. The areal and economic geology of northeastern Vermont. Vermont State Geol., Rept. 5, 1906: 64-69. (47 entries. 1841-1906. Regional.)
- 2800 RICHARDSON, C. H. The terranes of Orange County, Vermont. Vermont State Geol., Rept. 3, 1901-02: 98-101. (45 entries. 1841-98. Regional.)
- 2801 *SEELY, H. M. The geology of Vermont. The Vermonter, 5, 1901: 53-67.
See 675, 1316, 1650, 1651, 2445, 2462, 2661.
- VERTEBRATES.**
- 2802 ABEL, O. Grundzüge der Palaeobiologie der Wirbeltiere. Stuttgart, 1912, 708 pp. (Bibliographical footnotes. General.)
- 2803 ANDREWS, C. W. A descriptive catalogue of the Tertiary vertebrata of the Fayûm, Egypt. London, 1906, 324 pp. (Publ., xxix-xxxl. 48 entries. 1878-1905. Regional.)
- 2804 CASE, E. C. Revision of the amphibia and pisces of the Permian of North America. Washington, 1911: 178 pp. Carnegie Inst. Wash., Publ. 146. (Bibl., 176-178. 75 entries. 1875-1910. General.)
- 2805 HARLE, EDOUARD. Ensayo de una lista de mamíferos y aves del cuaternario conocidos hasta ahora en la península Iberica. Spain. Inst. geol., Bol. 32 (1911) 1912: 159-162. (51 entries. 1859-1910. Regional.)
- 2806 HAY, O. P. Bibliography and catalogue of the fossil vertebrata of North America. Washington, 1902, 868 pp. U. S. Geol. Surv. Bull. 179. (Bibl., 13-251. 4600 entries. 1793-1900. Regional.)
- 2807 LAMBE, L. M. The progress of vertebrate palaeontology in Canada. Roy. Soc. Canada, Trans. 2d ser. 10, sect. IV, 1904: 52-56. (91 entries. 1851-1904. Regional.)
- 2808 LULL, R. S. The mammals and horned dinosaurs of the Lance formation of Niobrara County, Wyoming. Am. Journ. Sci., 4th ser. 40, 1915: 347-348. (28 entries. 1889-1914. Regional.)
- 2809 LULL, R. S. Volant adaptation in vertebrates. Am. Nat., 40, 1906: 565-566. (21 entries. 1836-1906. General.)
- 2810 LYDEKKER, R. Vertebrate paleontology in 1909-1914. Sci. Prog., 4, 1910: 649-676; 5, 1911: 660-692; 6, 1912: 554-583; 8, 1914: 1-24, 626-653; 9, 1915: 613-638. (1909-14. General.)
- 2811 OSBURN, R. C. Adaptive modifications of the limb skeleton in aquatic reptiles and mammals. N. Y. Acad. Sci., Ann. 16, 1906: 472-476. (62 entries. 1847-1904. General.)
- 2811a PIERAGNOLI, L. Ossa patologische nella grotta di Equi in Lunigiana. Paläont. ital., 25, 1919: 30-31. (27 entries. 1799-1921. General.)
- 2812 SCHALCH, FERDINAND. Über ein neues Rhätvorkommen im Keuper des Donau-Rheinzuges. Baden. Geol. Landesanst., Mitth. 8, 1920: 314-315. (30 entries. 1833-1911. General.)
- 2813 SEGUENZA, LUIGI. I vertebrati fossili della provincia di Messina. Parte seconda. Soc. geol. ital., Boll. 21, 1902: 117-123. (80 entries. 1823-1901. Regional.)
- 2814 SELLARDS, E. H. Fossil vertebrates from Florida: a new Miocene fauna; new Pliocene species, the Pleistocene fauna. Florida Geol. Surv., Ann. Rept. 8, 1916: 109-119. (49 entries. 1884-1916. Regional.)
- 2815 STROMER, ERNST. Die Entdeckung und die Bedeutung der Land und Süßwasser bewohnenden Wirbeltiere im Tertiär und in der Kreide Aegyptens. Deutsch. geol. Gesell., Zeit. 68, 1916: 417-419. (50 entries. 1883-1915. Regional.)
- 2816 STROMER, ERNST. Mitteilungen über Wirbeltierreste aus dem Mittelpliocän des Natrontales (Agypten). Deutsch. geol. Gesell., Zeit. 65, 1913: 360-361, 371-

*Not seen.

- 372; 66, 1914: 33. (66 entries. 1832-1912. Regional.)
- 2817 THYNG, F. W. Squamosal bone in tetrapodons vertebrata. Boston Soc. Nat. Hist., Proc. 32, 1906: 420-425. (102 entries. 1770-1905. General.)
- 2818 WOODWARD, A. S. Outlines of vertebrate palaeontology for students of zoology. Cambridge, 1898, 470 pp. (Bibl., 432-459. 143 entries. 1833-98. General.)
See 1645.
- VESUVIANITE.**
- 2819 HLAUWATSCH, C. Bestimmung der Doppelbrechnung für verschiedene Farben an einigen Mineralien. I. Vesuvian. Literatur. T. M. P. M., n. f. 21, 1902: 107-108. (37 entries. 1820-1900. General.)
- VESUVIUS.**
- 2820 FURCHHEIM, FEDERIGO. Bibliografia del Vesuvio. Napoli, 1897, 297 pp. Bibliografia della Campania, Vol. 1. (ca 4200 entries. 1631-1897. Regional.)
- 2821 MATTEUCCI, R. V. Der Vesuv und sein letzter Ausbruch von 1891-94. T. M. P. M., n. f. 15, 1896: 325. (12 entries. 1891-1894. Regional.)
- VICTORIA.**
- 2822 BARAGWANATH, WM., jr. The Beringa gold-field. Melbourne, 1907, 17 pp. Vict. Geol. Surv., Mem. 5. (Bibl., 17. 5 entries. 1865-1905. Regional.)
- 2823 DENNANT, JOHN, and KITSON, A. E. Catalogue of the described species of fossils (except Bryozoa and Foraminifera) in the Cainozoic fauna of Victoria, South Australia and Tasmania. Vict. Geol. Surv., Rec. 1, pt. 2, 1903: 89-93. (95 entries. 1862-1902. Regional.)
- 2824 GREGORY, J. W. A contribution to the bibliography of the economic geology of Victoria, to the end of 1903. Melbourne, 1907, 131 pp. Vict. Geol. Surv., Rec. 2, pt. 3. (1852?-1903. Regional.)
- 2825 HARRIS, W. J. The paleontological sequence of the Lower Ordovician rocks in the Castlemaine District. Roy. Soc. Vict., Proc. 29, 1916: 72-73. (19 entries. 1853-1909. Regional.)
- 2825a HOWITT, A. M. The Maryborough gold field, a report descriptive of quarter sheet No. 42 B. S. W. . . . Melbourne, 1913, 76 pp. Vict. Geol. Surv., Mem. 11. (Bibl. 74. 11 entries. 1859-1912. Regional.)
- 2826 HUNTER, STANLEY. The deep leads of Victoria. Melbourne, 1909, 142 pp. Vict. Geol. Surv., Mem. 7. (779 entries. 1860-1907. Regional.)
- 2827 JUNNER, N. R. The geology and ore-deposits of the Walhalla-Woods Point auriferous belt. Austral. Inst. Min. Eng., Proc. n. s. 39, 1920: 253-256. (57 entries. 1868-1918. Regional.)
- 2828 KITSON, A. E. The Jumbunna and Powlett plains district, south Gippsland. Melbourne, 1917, 26 pp. Vict. Geol. Surv., Bull. 40. (Bibl., 24. 14 entries. 1884-1914. Regional.)
- 2829 SKEATS, E. W., and SUMMER, H. S. The geology and petrology of the Macedon district. Melbourne, 1912, 58 pp. Vict. Geol. Surv., Bull. 24. (Literature, [5]-6. 6 entries. 1852-1902. Footnotes.)
- 2830 WHITELAW, O. A. L. The topography, geology and mines of the Woods Point district. Melbourne, 1916, 32 pp. Vict. Geol. Surv., Mem. 13. (Bibl., 30. 11 entries. 1864-1907. Regional.)
- 2831 WHITELAW, O. A. L. The Wedderburn gold-field. Melbourne, 1911, 38 pp. Vict. Geol. Surv., Mem. 10. (Works, 31. 9 entries. 1888-1908. Regional.)
See 1528.
- VIRGINIA.**
- 2832 CLARK, W. B., and MILLER, B. L. The physiography and geology of the Coastal Plain province of Virginia. . . . Charlottesville, 1912, 274 pp. Va. Geol. Surv., Bull. 4. (Literature, 19-45. 169 entries. 1783-1911. Regional.)
- 2833 ECKEL, E. C. The Oriskany and Clinton iron ores of Virginia. U. S. Geol. Surv., Bull. 285, 1906: 187, 189. (38 entries. 1877-1902. Regional.)
- 2833a FERGUSON, H. G. Tin deposits near Irish Creek, Virginia. Charlottesville, 1918, 19 pp. Va. Geol. Surv., Bull. 15-A. (Bibl., 17-18. 11 entries. 1883-1907. Regional.)
- 2834 GILES, A. W. The country about Camp Lee, Virginia. Charlottesville, 1918, 40 pp. Va. Geol. Surv., Bull. 16. (Bibl., 40. 8 entries. 1904-17. Regional.)
- 2835 TABOR, STEPHEN. Geology of the gold belt in the James River basin Virginia. Charlottesville,

- 1913, 271 pp. Va. Geol. Surv., Bull. 7. (Bibl., 260-261. 50 entries. 1835-1910. Regional.)
- 2836 WATSON, T. L. A bibliography of the geological, mineralogical and paleontological literature of the state of Virginia. Ithaca, N. Y., 1897, 109 pp. Bull. Am. Paleont., 2, no. 7. (835 entries. 1774-1897. Regional.)
- 2837 WATSON, T. L. Lead and zinc deposits of the Virginia-Tennessee region. Am. Inst. M. E., Trans. 36, 1906: 736-737. (32 entries. 1870-1905. Regional.)
- 2838 WATSON, T. L. Lead and zinc deposits of Virginia. [Richmond, Va.] 1905, 156 pp. Va. Geol. Surv., Geol. ser. 1. (Bibl., 16-18. 26 entries. 1870-1905. Regional.)
- 2839 WATSON, T. L. Mineral resources of Virginia. Lynchburg, Va., 1907, 618 pp. (References through text. 380 entries. 1836-1907. Regional.)
See 330, 408, 653, 655, 739, 751, 859, 1319, 2379, 2688, 2920.
- VOLCANIC ASHES AND SANDS.**
- 2840 WOOLSEY, L. H. Volcanic ash near Durango, Colo. U. S. Geol. Surv., Bull. 285, 1906: 478-479. (20 entries. 1880-1903. Regional.)
See 2145.
- VOLCANIC DUST.**
- 2841 ARCTOWSKI, HENRYK. Volcanic dust veils and climatic variations N. Y. Acad. Sci., Ann. 26, 1915: 149-174. (79 entries. 1844-1914. Footnotes.)
- VOLCANOES AND VOLCANOLOGY.**
- 2842 BRUN, ALBERT. Recherches sur l'exhalaison volcanique. Genève, 1911, 277 pp. (Bibl., 9-10. 19 entries. 1901-10. General.)
- 2843 FRIEDLAENDER, IMMANUEL. Über vulkanische Verwerfungstäler. Vulkanismus und Tektonik. Zeit. f. Vulkan., 2 1915-16: 220. (14 entries. 1867-1914. General.)
- 2844 GAGEL, C. Die Mittelatlantischen Vulkaninseln. Heidelberg, 1910, 32 pp. Handb. reg. Geol., 4 heft. (Literature, 4. 10 entries. 1840-1910. Regional.)
- 2845 *JOHNSTON-LAVIS, H. J. Bibliography of the geology and eruptive phenomena of the more important volcanoes of southern Italy. London, 1918, 374 pp.
- 2846 LOZINSKI, W. v. Vulkanismus und Zusammenschub. Geol. Rundsch., 9, 1918: 65-67. (87 entries. 1856-1916. General.)
- 2847 RECLUS, ELISÉE. Les volcans de la terre. Soc. belge astron., 1-3 fasc, 1906-10, 515 pp. (1906-10. General. Bibliographies end each part.)
- 2848 RUDOLPH, E. Bericht über die vulcanischen Ereignisse während des Jahres 1894. T. M. P. M., n. f. 16, 1897: 365-464. (201 entries. 1882-95. General.)
- 2848a SABOT, R. Revue Française de Vulcanologie pour 1912-1913. Analyse de Travaux publiés. Zeit. f. Vulkan., 1, 1914: 51-55. (11 entries. 1912-13. Regional.)
- 2849 SAPPER, KARL. Beiträge zur Geographie der tätigen Vulkane. Zeit. f. Vulkan., 2, 1915-16: 179-197. (246 entries. 1700-1914. General.)
- 2850 SCHWARZ, E. H. L. Recent work on volcanoes. Sci. Prog., 8, 1914: 8. (15 entries. 1879-1911. General.)
- 2851 WOLFF, F. v. Der Vulkanismus. Bd. 1: Allgemeiner Teil. Stuttgart, 1914, 711 pp. (654 entries. 1824-1913. General. Literature ends each chapter.)
See 336, 466, 640, 945, 946, 954a, 960, 1175, 1346, 1466, 1473, 1480, 1486, 1490, 1505, 1509, 1566, 1573, 1714, 1715, 1797, 1874, 2088, 2124, 2371, 2820, 2821, 2868, 2882.
- VOSGES.**
- 2852 SEIDLITZ, WILFRIED VON. Leitlinien varistischer Tektonik im Schwarzwald und in den Vogesen. Deutsch. geol. Gesell., Zeit. 66, 1914: Monatsb.: 123-124. (29 entries. 1877-1913. Regional.)
See 198, 204, 1159, 1199, 1209, 2719.
- WALES.**
- 2853 GREENLY, EDWARD. The geology of Anglesey. 2 vols. London, 1919. Gt. Brit. Geol. Surv., Mem. (Bibl., vol. 1: 29-35. 197 entries. 1610-1915. Regional.)
- 2854 GROOM, THEODORE. The Bala and Llandovery rocks of Glyn Ceiriog (North Wales). Geol. Soc. London, Q. J. 64, 1908: 547-548. (21 entries. 1841-1904. Regional.)
- 2855 STRAHAN, AUBREY, and CANTRILL, T. C. The geology of the south Wales coal-field. Part III. The country around Cardiff. London, 1902, 147 pp. Gt. Brit. Geol. Surv., Mem. (Bibl., 111-

*Not seen.

142. 623 entries. 1697-1902. Regional.)

See 1025, 1334, 1370, 1552.

WASHINGTON (STATE).

2856 ARNOLD, RALPH. Bibliography of the literature referring to the geology of Washington. Wash. Geol. Surv., Ann. Rept. 1, 1902: 321-338. (179 entries. 1801-1901. Regional.)

2857 BANCROFT, HOWLAND. The ore deposits of northeastern Washington. Washington, 1914, 215 pp. U. S. Geol. Surv., Bull. 550. (Literature, 2. 11 entries. n. d. Regional.)

2857a FISCHER, A. H. A summary of mining and metalliferous mineral resources in the state of Washington, with bibliography. Seattle, 1918, 124 pp. Engineering experiment station University of Washington, Bulletin 4. (Bibl., 36-99. 547 entries. 1890-1918. Regional.)

2858 LEIGHTON, M. M. The road building sands and gravels of Washington. Olympia, 1919, 307 pp. Wash. Geol. Surv., Bull. 22. (Bibl., 292-294. 20 entries. 1880-1916. Regional.)

2859 O'DONNELL, GRETCHEN. Bibliography of Washington geology and geography. Olympia, 1913, 63 pp. Wash. Geol. Surv., Bull. 12. (420 entries. 1845-1913. Regional.)

2859a WEAVER, C. E. Geology and ore deposits of the Blewett mining district. Olympia, Wash., 1911, 104 pp. Wash. Geol. Surv., Bull. 6. (Bibl., 14-19. 8 entries. 1893-1906. Regional.)

2859b WEAVER, C. E. The mineral resources of Stevens County. Wash. Geol. Surv., Bull. 20, 1920: 19-27. (27 entries. 1884-1914. Regional.)

2860 WEAVER, C. E. The Tertiary formations of western Washington. Olympia, 1916, 327 pp. Wash. Geol. Surv., Bull. 13. (77 entries. 1845-1916. Regional.)

See 716, 2727, 2770, 2773, 2920.

WATER. See HYDROGRAPHY. SPRINGS. UNDERGROUND WATERS. WATER SUPPLY. ETC.

WATER ANALYSIS. See 1237.

2861 CLARKE, F. W. The data of geochemistry. Washington, 1908, 716 pp. U. S. Geol. Surv., Bull. 330. (Bibl., 170-171. 22 entries. 1864-1902.)

2d ed. 1911, 782 pp. (pp. 204-205).

Bull. 491, 24 entries. 1864-1911.

3d ed. 1916, 821 pp. (pp. 215-216).

Bull. 616, 28 entries. 1885-1915.

4th ed. 1920, 832 pp. (pp. 210-211).

Bull. 695, 30 entries. 1864-1918.

WATER POWERS. See 617, 1729a. 2862.

WATER SUPPLY.

2862 HOYT, J. C., and WOOD, B. D. Index to the hydrographic progress reports of the United States Geological Survey 1888 to 1903. Washington, 1905, 253 pp. U. S. Geol. Surv., Water-supply Paper 119. (114 entries. 1888-1905. Regional.)

2863 U. S. GEOLOGICAL SURVEY. Surface water supply of the United States 1917. Parts I-XII. Washington, 1920-21. Separate pagination. *Its* Water-supply Papers 451-464. (851 entries. 1853-1918. Regional.)

2864 WOOD, B. D., comp. Gaging stations maintained by the United States Geological Survey 1888-1910 and survey publications relating to water resources. Washington, 1912, 102 pp. U. S. Geol. Surv., Water-supply Paper 280. (325 entries. 1886-1911. Regional.)

See 290, 340, 1068, 1809, 2322.

See also UNDERGROUND WATERS. WATER POWERS.

WEATHERING.

2865 BUCKMAN, H. O. The chemical and physical processes involved in the formation of residual clay. Am. Cer. Soc., Trans. 13, 1911: 364-384. (181 entries. 1821-1910. General.)

2866 HÄBERLE, DANIEL. Die gitter-, netz- und wabenförmige Verwitterung der Sandsteine. Geol. Rundsch., 6, 1915: 264-266. (42 entries. 1893-1913. General.)

2867 HORWITZ, L. Contribution à l'étude des Cônes de déjections dans la vallée du Rhône. Lausanne Univ. Lab. géol., Bull. 16, 1911: 115-116. (35 entries. 1873-1910. Regional.)

WEST AFRICA.

2867a DOLLFUS, G. F. Les coquilles du quaternaire marin du Sénégal. Paris, 1911, 72 pp. Soc. géol. France, Mém. Pal. 44. (Bibl., 67-68. 37 entries. 1840-1910. Regional.)

See also LIBYA.

WEST INDIES.

2868 HOVEY, E. O. Bibliography of literature of the West Indian

eruptions published in the United States. *Geol. Soc. Am., Bull.* 15, 1904: 562-566.

See 835, 2371.

See also MARTINIQUE, ST. VINCENT, ETC.

WEST VIRGINIA.

- 2869 BROWN, S. B. A bibliography of works upon the geology and natural resources of West Virginia, from 1764-1901. And also a cartography of West Virginia, from 1737-1901. Morgantown, 1901, 85 pp. *W. Va. Geol. Surv., Bull.* 1. (486 entries. 1764-1901. Regional.)

See 793, 1662a, 2379.

WESTERN AUSTRALIA.

- 2870 BLATCHFORD, T., and JUTSON, J. T. The mining geology of the Kanowna reef line, Kanowna, north-east Coolgardie goldfield. Perth, 1912, 106 pp. *W. Austral. Geol. Surv., Bull.* 47. (Bibl., 102-103. 15 entries. 1894-1908. Regional.)
- 2871 CARD, G. W. Notes on the country rock of the Kalgoorlie gold-field Western Australia, with a bibliography. *N. S. Wales Geol. Surv., Rec.* 6, 1898: 41-42. (21 entries. 1894-98. Regional.)
- 2872 CHAPMAN, F., and ETHERIDGE, R., jr. Palaeontological contributions to the geology of Western Australia. Series VI, Nos. XI and XII. Perth, 1917, 94 pp. *W. Austral. Geol. Surv., Bull.* 72. (96 entries. 1767-1914. Regional. Literature-Foraminifera, 48-51. 79 entries. 1767-1914. Ostracoda, 59. 17 entries. 1830-1904.)
- 2873 CLARKE, E. DE C. The geology and ore-deposits of Meekatharra, Murchison goldfield. Perth, 1916, 342 pp. *W. Austral. Geol. Surv., Bull.* 68. (Literature, 25-27. 24 entries. 1893-1914. Regional.)
- 2874 GLAUERT, LUDWIG. A list of western Australian fossils (systematically arranged). *W. Austral. Geol. Surv., Bull.* 36, 1910: 73-74. (23 entries. 1867-1909. Regional.)
- 2875 JUTSON, J. T. An outline of the physiographical geology (physiography) of Western Australia. Perth, 1914, 240 pp. *W. Austral. Geol. Surv., Bull.* 61. (References, 209-215. 96 entries. 1849-1912. Regional.)
- 2876 MAITLAND, A. G. Bibliography of

the geology of Western Australia. Perth, 1898, 31 pp. *W. Austral. Geol. Surv., Bull.* 1. (331 entries. 1826-1897. Regional.)

- 2876a SAINT-SMITH, E. C., and FARGU-HARSON, R. A. Geology and mineral resources of the Yilgarn goldfield. Pt. I. Southern Cross. Perth, 1913, 193 pp. *W. Aust. Geol. Surv., Bull.* 49. (Bibl., 110-111. 36 entries. 1876-1910. Regional.)
- 2877 TALBOT, H. W. B., and CLARKE, E. DE C. A geological reconnaissance of the country between Laverton and the south Australian border (near South Latitude 26°), including part of the Mount Margaret goldfield. Perth, 1917, 207 pp. *W. Austral. Geol. Surv., Bull.* 75. (Works, 79-80. 8 entries. 1890-1914. Regional.)
- 2878 THOMSON, J. A. On the petrology of the Kalgoorlie goldfield (Western Australia). *Geol. Soc. London, Q. J.* 69, 1913: 674-676. (67 entries. 1895-1912. Regional.)
- 2879 WOODWARD, H. P. The reputed petroliferous area of the Warren River district. Perth, 1915, 54 pp. *W. Austral. Geol. Surv., Bull.* 65. (Literature, 9-16. 9 entries. 1902-13. Regional.)

See 92, 2166.

WESTPHALIA.

- 2880 BURRE, OTTO. Der Teutoburger Wald (Osning) zwischen Bielefeld und Orlinghausen. Prussia. *Geol. Landesanst., Jahrb.* 31-I, 1913: 342-343. (35 entries. 1848-1910. Regional.)
- 2881 DENCKMANN, A. Geologische Grundriss- und Profilbilder als Erläuterungen zur älteren Tektonik des Siegerlandes. Berlin, 1914, 45 pp. *Arch. Lagerstättenf.* 19. (Literature, 42-45. 66 entries. 1789-1914. Regional.)
- 2882 KRAISS, ALFRED. Der Warburger Sattel, seine Baustörungen und die vulkanischen Durchbrüche. Prussia. *Geol. Landesanst. Jahrb.* 31-II, 1913: 415-419. (81 entries. 1815-1910. Regional.)
- 2883 LOHMANN, WILHELM. Die geologischen Verhältnisse des Wiehengebirges zwischen Barkhausen a. d. Hunte und Engter. Niedersäch. geol. Ver., *Jahresh.* 1, 1908: 75-77. (41 entries. 1836-1908. Regional.)

- 2884 MEYER, ERICH. Der Teutoburger Wald (Osning) zwischen Bielefeld und Werther. Prussia. Geol. Landesanst., Jahrb. 24, 1907: 379-380. (28 entries. 1849-1901. Regional.)
- 2885 MORDZIOL, C. Neuere Arbeiten über die regionale Geologie des Mainzer Beckens. Geol. Rundsch., 2, 1911: 220-221. Geol. Rundsch., 2, 1911: 220-221. (34 entries. 1899-1911. Regional.)
- 2886 STILLE, H. Der Gebirgsbau des Teutoburger Waldes zwischen Altenbeken und Detmold. Prussia. Geol. Landesanst., Jahrb. 20, 1900: 40-42. (48 entries. 1824-90. Regional.)
- 2887 WETZEL, WALTER. Faunistische und stratigraphische Untersuchung der Parkinsonienschichten des Teutoburger Waldes bei Bielefeld. (Beiträge zur Paläontologie und Stratigraphie des nordwest deutschen Jura; heraus. von J. F. Pompeckj. II) Palaeontographica. 58, 1911: 268-270. (57 entries. 1812-1909. Regional.)
See 636, 2089.
See also PRUSSIA.
- WHITE MOUNTAINS.**
- 2888 BENT, A. H. A bibliography of the White Mountains. Boston, 1911, 114 p. (ca 1067 entries. 1846-1910. Regional.)
- WIND. See EOLIAN GEOLOGY.**
- WISCONSIN.**
- 2889 ALDEN, W. C. The Quaternary geology of southeastern Wisconsin with a chapter on the older rock formations. Washington, 1918, 356 pp. U. S. Geol. Surv., Prof. Paper 106. (Bibl., 19-28. 158 entries. 1836-1916. Regional.)
- 2890 BAIN, H. F. Zinc and lead deposits of the upper Mississippi valley. Washington, 1906, 155 pp. U. S. Geol. Surv., Bull. 294. Wis. Geol. Surv., Bull. 19. Econ. ser. 12, 1907. Pagination the same. (Bibl., 6-8. 56 entries. 1821-1906. Regional.)
- 2891 CLELAND, H. F. The fossils and stratigraphy of the Middle Devonian of Wisconsin. Madison, Wis., 1911, 222 pp. Wis. Geol. Surv., Bull. 21. Sci. ser. 6. (Bibl., 23-26. 42 entries. 1860-1907. Regional.)
- 2892 CHRONOLOGICAL LIST of federal and State survey reports, with a few other papers on the geology and physical geography of Wisconsin. Wis. Geol. Surv., Bull. 36, App. G. 1916: 477-492. (108 entries. 1671-1915. General.)
- 2893 GRANT, U. S. Preliminary report on the lead and zinc deposits of southwestern Wisconsin. Madison, Wis., 1903, 103 pp. Wis. Geol. Surv., Bull. 9. Econ. ser. 5. (Bibl., 4-7. 37 entries. 1842-1902. Regional.)
- 2893a GRANT, U. S. Report on the lead and zinc deposits of Wisconsin. Madison, Wis., 1906, 100 pp. Wis. Geol. Surv., Bull. 14. Econ. ser. 9. (Bibl., 3-7. 43 entries. 1842-1905. Regional.)
- 2894 MARTIN, LAWRENCE. The physical geography of Wisconsin. Madison, Wis., 1916, 549 pp. Wis. Geol. Surv., Bull. 36. Educ. ser. 4. (496 entries. 1671-1915. Regional. Bibliographies through the text.)
- 2895 TELLER, E. E. The Hamilton formation at Milwaukee, Wisconsin. Wis. Nat. Hist. Soc., Bull. n. s. 1, 1900: 55-56. (23 entries. 1862-99. Regional.)
- 2895a THWAITES, F. T. Sandstones of the Wisconsin coast of Lake Superior. Madison, Wis., 1912, 117 pp. Wis. Geol. Surv., Bull. 25. Sci. ser. 8. (Bibl., 21-24. 39 entries. 1847-1911. Regional.)
- 2896 WEIDMAN, SAMUEL. The Baraboo iron-bearing district of Wisconsin. Madison, Wis., 1904, 190 pp. Wis. Geol. Surv., Bull. 13. (Literature, 8-10. 15 entries. 1856-1910. Regional.)
- 2897 WHITBECK, R. H. The geography of the Fox-Winnebago valley. Madison, Wis., 1915, [109] pp. Wis. Geol. Surv., Bull. 42. Educ. ser. 5. (Bibl., 100-105. 58 entries. 1839-1912. Regional.)
See 941, 1732, 2114, 2443, 2774, 2920.
- WOLFRAMITE.**
- 2898 BALL, L. C. The wolfram mines of Mount Carbine, north Queensland. Brisbane, 1915, 96 pp. Queensland Geol. Surv., Publ. 251. (Literature, 11. 3 entries. 1904-11. Regional.)
- 2899 BEDER, ROBERTO. Los yacimientos de los minerales de wolfram en la Republica Argentina Buenos Aires, 1916, 31 pp. Argentine Republic. Dir. gen. min., Bol. 12-B. (Bibl., 30-31.

- 15 entries. 1874-1914. Regional.)
See 260, 1096.
- WÜRTTEMBERG.**
- 2900 BRÄUHÄUSER, MANFRED. Beiträge zur Stratigraphie des Cannstatter Diluviums. Ver. Naturk. Württ., Jahresh. 64, 1909, Beilage: 2-6. (69 entries. 1694-1908. Regional.)
- 2901 BRÄUHÄUSER, M. Beiträge zur Kenntnis des Rotliegenden an der oberen Kinzig. Ver. Naturk. Württ., Jahresh. 66, 1910, Beilage: 34-36. (59 entries. 1805-1909. Regional.)
- 2902 DIETRICH, W. O., and KAUTSKY, F. Die Altersbeziehungen der schwäbischen und schweizerischen oberen Meeresmolasse und des Tertiärs am Südrand der Schwäbischen Alb. Centralb. f. Min., 1920: 252-253. (26 entries. 1893-1918. Regional.)
- 2903 ERDMANNSDÖRFFER, O. H. Die Entstehung der Schwarzwälder Gneise. Geol. Rundsch., 4, 1914: 383. (18 entries. 1894-1912. Regional.)
See 64, 390, 429, 443, 1227, 1233, 1284, 2520, 2713.
- WYOMING.**
- 2904 BALL, S. H. The Hartville iron-ore range, Wyoming. U. S. Geol. Surv., Bull. 315, 1907: 190-191. (9 entries. 1888-1904. Regional.)
- 2905 BALL, S. H. Titaniferous iron ore of Iron Mountain, Wyoming. U. S. Geol. Surv., Bull. 315, 1917: 206. (11 entries. 1852-1902. Regional.)
- 2906 BLACKWELDER, ELIOT. Post-Cretaceous history of the mountains of central western Wyoming. Journ. Geol., 23, 1915: 99-101. (28 entries. 1841-1913. Regional.)
- 2907 BOVEE, G. G. Bibliography and index of Wyoming geology 1823-1916. Cheyenne, Wyo., 1918, 446 pp. Wyo. State Geol., Bull. 17. (721 entries. 1823-1917. Regional.)
- 2908 HINTZE, F. F., jr. The Basin and Greybull oil and gas fields Big-horn county, Wyoming. Cheyenne, Wyo., 1915, 62 pp. Wyo. State Geol., Bull. 10. (Bibl., 61-62. 25 entries. 1893-1914. Regional.)
- 2909 HEWETT, D. F. The Heart Mountain overthrust, Wyoming. Journ. Geol., 28, 1920: 556-557. (17 entries. 1899-1917. Regional.)
- 2910 JAMISON, C. E. Geology and mineral resources of a portion of Fremont county, Wyo. Cheyenne, Wyo., 1911, 90 pp. Wyo. State Geol., Bull. 2-B. (Bibl., 12-16. 20 entries. 1837-1911. Regional.)
- 2911 JAMISON, C. E. The Salt Creek oil field Natrona county, Wyo. Cheyenne, Wyo., 1912, 75 pp. Wyo. State Geol., Bull. 4-B. (Bibl., 8-10. 16 entries. 1886-1912. Regional.)
- 2912 TRUMBULL, L. W. Petroleum geology of Wyoming. Cheyenne, Wyo., 1917, 81 pp. (Bibl., 75-78. 82 entries. n. d. Regional.)
- 2913 TRUMBULL, L. W. The Salt Creek oil field Natrona county. Cheyenne, Wyo., 1914, pp. 101-148. Wyo. State Geol., Bull. 8-B. (Bibl., 147-148. 20 entries. 1886-1914. Regional.)
- 2914 VEATCH, A. C. Geography and geology of a portion of southwestern Wyoming with special reference to coal and oil. Washington, 1907, 178 pp. U. S. Geol. Surv., Prof. Paper 56. (Bibl., 17-32. 195 entries. 1837-1906. Regional.)
- 2915 WEGEMANN, C. H. The Salt Creek oil field, Wyoming. U. S. Geol. Surv., Bull. 452, 1911: 82-83. (11 entries. 1886-1910. Regional.)
See 144, 2304, 2379, 2771, 2808.
- YORKSHIRE.** See 644.
- YUGOSLAVIA.** See JUGOSLAVIA.
- YUKON.**
- 2916 CAIRNES, D. D. Preliminary memoir on the Lewes and Nordenskiöld rivers coal district Yukon Territory. Ottawa, 1910, 70 pp. Canada Geol. Surv., Mem. 5. (5 entries. 1887-1908. Regional.)
See 115, 133.
- YUNNAN.** See 1428.
- ZEOLITES.**
- 2917 RINNE, F. Kristallographisch-chemischer Ab- und Umbau insbesondere von Zeolithen. Fortschr. Min. Krist. Petrogr., 3, 1913: 181-183. (55 entries. 1880-1910. General.)
See 1748a.
- ZINC.**
- 2918 JOSEPH, P. E. Zinc. Tucson, Arizona, 1915-16, 12 pp. Ariz.

- Univ., Bull. 20. Min. tech. ser. 11. (14 entries. 1905-13. General.)
- 2919 SIEBENTHAL, C. E. Zinc. U. S. Geol. Surv., Min. Res. 1907-I, 1908: 674-676. (57 entries. 1905-08. Regional.)
- 2920 SIEBENTHAL, C. E. Zinc (General report). U. S. Geol. Surv., Min. Res. 1915-I, 1917: 851-977. (147 entries. 1854-1916. Regional.)
- 2921 SMITH, E. A. The zinc industry. London, 1918, 223 pp. (Bibl., 213-221. 118 entries. 1861-1918. General.)
- See 782, 792, 1304, 1305, 1406, 1411, 1511, 1534, 1550, 1568, 1732, 1740a, 1816, 1903, 2059, 2285, 2669, 2788, 2837. 2838, 2890, 2893, 2893a.
- ZIRCON.** See 1807.
- ZIRCONIUM.**
- 2922 MARDEN, J. W., and RICH, M. N. Investigations of zirconium with especial reference to the metal and oxide. U. S. Bur. Mines, Bull. 186, 1921: 119-144. (443 entries. 1846-1919. General.)
- See 2292.
- See also RARE EARTHS.
- ZULULAND.** See 1825.

PART III

PERSONAL BIBLIOGRAPHIES

- 2923 **ACHIARDI, ANTONIO D'**, 1839-1902.
MANASSE, ERNESTO. Elenco delle pubblicazioni del Prof. Antonio d'Achiardi. Soc. geol. ital., Boll. 22, 1903: cxix-cxxiii. (77 entries. 1860-1902. Chronol.)
- 2924 **ADAMS, CHARLES BAKER**, 1814-53.
SEELY, H. M. Sketch of the life and work of Charles Baker Adams. Am. Geol., 32, 1903: 12. Vermont State Geol., Rept. 4, 1904: 14-15. (13 entries. 1845-52. Chronol.)
- 2924a **AEBERHARDT, BERCHTOLD**, 1872-1912.
*HEIMANN, A. Dr. Berchtold Aeberhardt, 1872-1912. Schw. naturf. Gesell., Verh. 1912, 1: 169-170.
- 2925 **AMEGHINO, FLORENTINO**, 1854-1911.
TORCELLI, A. J. Vida y obras del sabio. Obras completas y correspondencia científica de Florentino Ameghino, 1, 1913: 375-391. (186 entries. 1875-1911. Chronol.)
- APLIN, CHRISTOPHER D'OYLY HALE**. See 3242.
- 2926 **ARBER, EDWARD ALEXANDER NEWELL**, 1870-1918.
A., A. Obituary. Geol. Mag., n. s. (VI) 5, 1918: 428-431. (57 entries. 1901-18. Chronol.)
- 2927 **ARNAUD, HILAIRE**, 1827-1907.
GROSSOUVRE, A. DE. Notice nécrologique sur H. Arnaud. Soc. géol. France, Bull. 4th ser. 8, 1908: 232-233. (31 entries. 1862-1907. Chronol.)
- 2928 **ARZRUNI, ANDREA**, 1847-98.
FANTAPPIÉ, LIBERTO. Prof. Dott. Andrea Arzruni. Riv. min. e crist., 21, 1898: 94-97. (46 entries. 1872-95. Chronol.)
ROMANOWSKY, E. O. Arzruniana. [Verzeichniss der wissenschaftlichen publicationen von A. E. Arzruni. Russ. k. min. Gesell., Verh. 2d ser. 36, 1899: [477]-488. (78 entries. 1872-99. Chronol.)
- 2929 **BAIN, FRANCIS**, 1842-94.
WATSON, L. W. Francis Bain, Geologist. Roy. Soc. Canada, Trans., 2d ser. 9-IV, 1903: 140-142. (62 entries. 1885-92.) Chronol.
- 2930 **BALTZER, RICHARD ARMIN**, 1842-1913.
HUGI, E. Verzeichnis der Schriften von Prof. Dr. A. Baltzer. Schw. naturf. Gesell., Verh. 1914-I: 94-105. (184 entries. 1869-1912. Chronol.)
HUGI, E. Zum Gedächtnis Armin Baltzer's. Centralbl. f. Min., 1914: 422-430. (146 entries. 1868-1912. Chronol.)
- 2931 **BAPTISTA, ISIDORO EMILIO**, 1815-63.
CHOFFAT, PAUL. Deux précurseurs de la commission géologique du Portugal. . . . Dr. Isidoro Emilio Baptista. Portugal. Serv. geol., Comm. 8, 1910-11: 108-109. (10 entries. 1846-61. Chronol.)
- 2932 **BARETTI, MARTINO**, 1841-1905.
SACCO, FEDERICO. Elenco delle pubblicazioni. Soc. geol. ital., Boll. 26, 1907: cxxxiii-cxxxiv. (36 entries. 1866-1900. Chronol.)
- 2933 **BARLOW, ALFRED ERNEST**, 1861-1914.
ADAMS, F. D. Memoir of Alfred Ernest Barlow. Geol. Soc. Am., Bull. 26, 1914: 15-18. (61 entries. 1882-1914. Chronol.)
- 2934 **BARRELL, JOSEPH**, 1869-1919.
[SCHUCHERT, C.] Joseph Barrell. Am. Journ. Sci., 4th ser. 48, 1919: 277-280. (93 entries. 1899-1919. Chronol.)
- 2935 **BARROIS, CHARLES EUGENE**, 1851-
Liste des publications de M. Charles Barrois. Soc. géol. Nord, Ann. 33, 1904: 268-282. (179 entries. 1873-1904. Chronol.)
*Notice sur les travaux scientifiques de Charles Barrois. Paris, 1904, 56 pp.
- 2936 **BASSANI, FRANCESCO**, 1853-1916.
ERASMO, GEREMIA D'. Francesco Bassani. Soc. geol. ital., Boll. 35, 1916: lxxviii-lxxvi. (105 entries. 1876-1915. Chronol.)
LORENZ, G. DE. Francesco Bassani. Accad. sci. Napoli, Rendic. 3d ser. 22, 1916: 81-88. (105 entries. 1876-1915. Chronol.)
PARONA, C. F. A ricordo di Francesco Bassani. Italy.

*Not seen.

- Com. geol., Boll. 46, 1916: 96-102. (105 entries. 1876-1915. Chronol.)
- 2937 **BAUER, MAX HERMANN**, 1844-1917.
- BRAUNS, R. Max Bauer. Centralb. f. Min., 1918: 80-84. (86 entries. 1866-1916. Chronol.)
- 2938 **BAUR, GEORG HERMANN CARL LUDWIG**, 1859-98.
- WHEELER, W. M. George Baur's life and writings. Am. Nat., 33, 1899: 23-30. (144 entries. 1882-97. Chronol.)
- 2939 **BEADNELL, HUGH JOHN LLEWELLYN**.
- Retirement of Mr. Hugh J. Llewellyn Beadnell, F. G. S. Geol. Mag., n. s. (V) 2, 1905: 528. (15 entries. 1900-05. Chronol.)
- 2940 **BECK, RICHARD, i. e., CARL RICHARD**, 1858-1919.
- KOSSMAT, FRANZ. Richard Beck nekrolog. Sachs. Akad. Wissen, Leipzig, Ber. u. d. Verh. 71, 191: 360-364. (96 entries. 1882-1915. Chronol.)
- STUTZER, O. Richard Beck. Verzeichniss der Veröffentlichungen R. Beck's. Zeit. f. prak. Geol., 27, 1919: 151-153. (95 entries. 1882-1919. Subj. Chronol.)
- 2941 **BECKER, GEORGE FERDINAND**, 1847-1919.
- EVANS, I. P., comp. Bibliography of George Ferdinand Becker. . . Geol. Soc. Am., Bull. 31, 1919: 19-25. (128 entries. 1874-1916. Chronol.)
- 2942 **BECHQUEREL, HENRI**, 1852-1908.
- BECHQUEREL, JEAN. Liste des ouvrages et mémoires publiés de 1875 a 1908 par M. Henri Becquerel. Mus. hist. nat. Paris. Nouv. Arch. 5th ser. 1, 1909: iii-x. (106 entries. 1875-1908. Subj. Chronol.)
- 2943 **BEECHER, CHARLES EMERSON**, 1856-1904.
- BUSH, L. P. Bibliography of Charles Emerson Beecher. Am. Geol., 39, 1904: 10-13. (70 entries. 1876-1904. Chronol.)
- DALL, W. H. Biographical memoir of Charles Emerson Beecher, 1856-1904. Nat. Acad. Sci., Biog. Mem. 6, 1906: 66-70. (70 entries. 1876-1904. Chronol.)
- JACKSON, R. T. Charles Emerson Beecher. Am. Nat., 38, 1904: 418-426. (108 entries. 1876-1904. Chronol.)
- SCHUCHERT, CHARLES. Bibliography of the more important papers of Charles Emerson Beecher. Am. Journ. Sci., 4th ser. 17, 1904: 421-422. (70 entries. 1876-1903. Chronol.)
- SCHUCHERT, CHARLES. Memoir of Charles Emerson Beecher. Geol. Soc. Am., Bull. 16, 1905: 546-548. (37 entries. 1876-1904. Chronol.)
- 2944 **BENNIE, JAMES**, 1821-1901.
- HORNE, JOHN. Obituary notice of the late Mr. Bennie. Edinburgh Geol. Soc., Trans. 8, 1905: 192-193. (19 entries. 1867-96. Chronol.)
- 2945 **BERGERON, JULES**, 1853-1919.
- BIGOT, A. Jules Bergeron. Soc. géol. France, Bull. 4th ser. 20, 1920: 117-123. (139 entries. 1882-1915. Chronol.)
- *Notice sur les travaux scientifiques de J. Bergeron. Paris, 1912, 98 pp.
- 2946 **BERTELLI, P. TOMOTEO**, 1826-1905.
- *BARATTA, M. L'opera scientifica del P. Timoteo Bertelli (1826-1905). Riv. geog. ital., 12, 1905: 193-203, 340-350.
- 2947 **BERTRAND, ÉMILE**, 1844-1909.
- WYROUBOFF, G. Émile Bertrand. Notice sur les travaux. Soc. franç. min., Bull. 33, 1910: 121-124. (61 entries. 1870-97. Chronol.)
- 2948 **BERTRAND, MARCEL ALEXANDRE**, 1847-1907.
- KILIAN, WILFRID, and RÉVIL, J. Notice sur la vie et les travaux de Marcel Bertrand. Soc. hist. nat. Chambéry, Bull. 2d ser. 13, 1907-08: 10-37. (124 entries, 1881-1900. Chronol.)
- TERMIER, PIERRE. Éloge de Marcel Bertrand. Soc. géol. France, Bull. 4th ser. 8, 1908: 198-204. (133 entries. 1880-1905. Chronol.)
- TERMIER, PIERRE. Marcel Bertrand. Ann. mines, 10th ser. Mem. 13, 1908: 338-346. (133 entries. 1880-1900. Chronol.)
- 2949 **BEUSHAUSEN, HERMANN ERNST LOUIS**, 1863-1904.
- Louis Beushausen. Prussia. Geol. Landesanst., Jahrb. 25, 1907: 1028-1029. (33 entries. 1884-1907. Chronol.)
- 2950 **BILLINGS, ELKANAH**, 1820-76.
- AMT, H. M. Brief biographical sketch of. . . Am. Geol., 27,

*Not seen.

- 1901: 272-281. (180 entries. 1854-76. Chronol.)
- WALKER, B. E. List of the published writings of Elkanah Billings, F. G. S., Palaeontologist to the Geological Survey of Canada, 1856-76. *Canad. Rec. Sci.*, 8, 1901: 366-388. (167 entries. 1854-76. Chronol.)
- 2951 BILLOWS, EDUARD.
*BILLOWS, EDUARD. Concorso dell' anno 1909 alla cattedra di mineralogia della Regia Università di Sassari. Elenco dei titoli e delle pubblicazioni del concorrente Dott. Edoardo Billows. Padova, 1909, pp. 1-16.
- 2952 BLAKE, JOHN FREDERICK, 1839-1906.
Obituary. *Geol. Mag.*, n. s. (V) 3, 1906: 428-431. (94 entries. 1870-1905. Chronol.)
- 2953 BLAKE, WILLIAM PHIPPS, 1826-1910.
BABCOCK, K. C. The published writings of William Phipps Blake, 1850-1910. Reprinted from President's report to the Board of Regents of University of Arizona for 1909. 23 pp. 1910. (206 entries. 1850-1910. Chronol.)
- RAYMOND, R. W. Biographical notice of William Phipps Blake. *Am. Inst. M. E., Trans.* 41, 1911: 857-864. (204 entries. 1850-1908. Chronol.)
- RAYMOND, R. W. Memoir of William Phipps Blake. *Geol. Soc. Am., Bull.* 22, 1910: 39-47. (204 entries. 1850-1910. Chronol.)
- 2954 BLANFORD, WILLIAM THOMAS, 1832-1905.
Eminent living geologists: William Thomas Blanford. *Geol. Mag.*, n. s. (V), 2, 1905: 9-15. (174 entries. 1854-1901. Chronol.)
- [HOLLAND, T. H.] W. T. Blanford, A. R. S. M., LL. D., C. I. E., F. R. S. *India Geol. Surv., Rec.* 32, 1905: 248-257. (175 entries. 1854-1901. Chronol.)
- 2955 BLÜMCKE, ADOLF, 1857-1914.
FINSTERWALDER, SEB. Zusammenfassendes Verzeichnis der Druckschriften Adolf Blümckes. *Zeit. f. Gletscherk.*, 9, 1914-15: 75-76. (18 entries. 1887-1910. None.)
- 2956 BODENBENDER, GUILLERMO.
BODENBENDER, GUILLERMO. Publicaciones del . . . Acad. nac. Córdoba, Bol. 19, no. 1, 1911. [223-224.] (23 entries. n. d. None.)
- 2957 BÖHM, GEORG, 1854-1913.
DEECKE, W. Liste der von Georg Böhm verfassten Druckschriften. *Centralb. f. Min.*, 1913: 292-295. (71 entries. 1877-1912. Chronol.)
- 2958 BOEKE, HENDRIK ENNO, 1881-1918.
RINNE, E. Verzeichnis der Arbeiten von H. E. Boeke. *Centralb. f. Min.*, 1919: 94-96. (53 entries. 1906-17. Chronol.)
- 2959 BONETTI, FILIPPO, 1854-1911.
CLERICI, E. Pubblicazioni del Prof. Filippo Bonetti. *Soc. geol. ital., Boll.* 31, 1912: (13 entries. 1884-1909. Chronol.)
- 2960 BONNEY, THOMAS GEORGE, 1833-.
Eminent living geologists: The Rev. Professor T. G. Bonney. *Geol. Mag.*, n. s. (IV) 8, 1901: 394-400. (176 entries. 1865-99. Chronol.)
- 2961 BOTTI, ULDERIGO, -1905?
STEFANO, GIUSEPPE DE. Ulderigo Botti. *Soc. geol. ital., Boll.* 25, 1906: lxxxviii-xc. (29 entries. 1868-1902. Chronol.)
- 2962 BOULE, MARCELLIN, 1861-.
*BOULE, MARCELLIN. Titres et travaux scientifiques, supplement (1903-08). Paris, 1908, 28 pp.
- 2963 BOUSSAC, JEAN, 1885-1915.
LUGEON, MAURICE. Jean Boussac. *Soc. géol. France, Bull.* 4th ser. 17, 1917: 339-341. (63 entries. 1904-16. Chronol.)
- BRANDÃO, VICENTE DE SOUZA.
See SOUZA-BRANDÃO, VICENTE DE.
- 2964 BRIART, ALPHONSE, 1825-98.
Publications d'Alphonse Briart. *Soc. géol. Belg., Ann.* 28, 1900-01: B197-B205. (88 entries. 1855-97. Chronol.)
- 2965 BROADHEAD, GARLAND CARR, 1827-1912.
GREGER, D. K. Garland Carr Broadhead, with bibliography. *Mo. Hist. Rev.*, 9, no. 2, 1915: 60-74. (217 entries. 1859-1915. Chronol.)
- KEYES, C. R. Memorial of Garland Carr Broadhead. *Geol. Soc. Am., Bull.* 30, 1918: 20-27. (191 entries. 1859-1910. Chronol.)
- 2966 BROWN, AMOS PEASLEE, 1864-1917.
PENROSE, R. A. F., jr. Memorial of Amos P. Brown. *Geol. Soc.*

*Not seen.

- Am., Bull. 29, 1917: 15-17. (33 entries. 1888-1917. Chronol.)
- STONE, WITMER. Amos Peaslee Brown. Am. Phil. Soc., Proc. 57, 1918: iii-xv. (30 entries. 1888-1917. Footnotes.)
- BROWN, HENRY YORKE LYELL**, 1844-. See 3242.
- 2967 BRUSH, GEORGE JARVIS**, 1831-1912.
- DANA, E. S. George Jarvis Brush [1831-1912]. Am. Journ. Sci., 4th ser. 33, 1912: 396. (29 entries. 1849-83. Chronol.)
- FORD, W. E. George Jarvis Brush. [1831-1912]. Sci., n. s. 35, 1912: 410-11. (44 entries. 1849-83. Chronol.)
- 2968 BUCKLEY, ERNEST ROBERTSON**, 1872-1912.
- BUEHLER, H. A. Memoir of Ernest Robertson Buckley. Geol. Soc. Am., Bull. 24, 1912: 47-48. (32 entries. 1898-1912. Chronol.)
- 2969 BULLEN, ROBERT ASHINGTON**, 1850-1912.
- Obituary. Geol. Mag., n. s. (V) 9, 1912: 527-528. (28 entries. 1894-1911. Chronol.)
- 2970 BUREAU, ÉDOUARD**, 1830-1918.
- CARPENTIER, A. Liste des publications d'Édouard Bureau. Soc. géol. France, Bull. 4th ser. 19, 1919: 119-120. (31 entries. 1859-1914. Chronol.)
- GAGNEPAIN, F. Édouard Bureau sa vie et son oeuvre. Rev. gén. bot., 31, 1919: 214-218. (158 entries. 1861-1901. None.)
- CABRAL, FREDERICO A. DE VASCONCELLOS PEREIRA**. See VASCONCELLOS PEREIRA
- CABRAL, FREDERICO AUGUSTO DE.
- 2971 CAIRNES, DELORME DONALDSON**, 1879-1917.
- CAMSELL, CHARLES. Memorial of Delorme D. Cairnes. Geol. Soc. Am., Bull. 29, 1917: 19-20. (38 entries. 1905-17. Chronol.)
- 2972 CALLAWAY, CHARLES**, 1838-1915.
- RICHARDSON, L. Obituary. Geol. Mag., n. s. (VI) 2, 1915: 527-528. (40 entries. 1874-1905. Chronol.)
- 2973 CALVIN, SAMUEL**, 1840-1911.
- SHIMEK, B. Memoir of Samuel Calvin. Geol. Soc. Am., Bull. 23, 1912: 9-12. (74 entries. 1878-1911. Chronol.)
- 2974 CARPENTER, FRANKLIN R.**, 1848-1910.
- HOFMAN, H. O. Memoir of Franklin R. Carpenter, 1848-1910. Geol. Soc. Am., Bull. 22, 1911: 51-52. (18 entries. 1888-1905. Chronol.)
- HOFMAN, H. O. Biographical notice of Franklin R. Carpenter. Am. Inst. M. E., Trans. 41, 1911: 875. (18 entries. 1888-1906. Journ. ref.)
- 2975 CASH, WILLIAM**, 1843-1914.
- S[HEPPARD], T[THOMAS]. William Cash, F. G. S. (1843-1914.) Naturalist, 1915: 30. (33 entries. 1877-1912. Chronol.)
- 2976 CASTILLO, ANTONIO DEL**, 1820-95.
- AGUILERA, J. G. Antonio del Castillo. Mexico. Inst. geol., Bol. 4-6, 1896: 3-7. (32 entries. 1845-95. Chronol.)
- ORDOÑEZ, EZEQUIEL. Memoir of Antonio del Castillo. Geol. Soc. Am., Bull. 7, 1896: 487-488. (20 entries. 1845-95. Chronol.)
- 2977 CHANTRE, ERNEST**, 1843-
- CHANTRE, ERNEST. Paléontologie humaine: L'homme quaternaire dans le bassin du Rhone. Étude géologique et anthropologique. Lyon, 1901, 193 pp. (Publ., 187-193. 123 entries. 1866-1900. Chronol.)
- 2978 CHAPER, MAURICE ARMAND**, 1834-96.
- DOUVILLE, H. Notice nécrologique sur Maurice Chaper. Soc. géol. France, Bull. 3d ser. 27, 1899: 188-190. (36 entries. 1868-94. Chronol.)
- 2979 CHOFFAT, PAUL**, 1849-1919.
- FLEURY, ERNEST. Une phase brillante de la géologie portugaise Paul Choffat. . . . Lisbonne, 1920, 54 pp. Soc. port. sci. nat., Mem. Ser. geol., 3. (Works, 34-51. 186 entries. 1874-1920. Chronol.)
- Publications géologiques. 1874-1910. Portugal. Serv. geol., Comm. 8, 1910-11: 143-177. (276 entries. 1874-1910. Subj. Chronol.)
- 2980 CLARK, WILLIAM BULLOCK**, 1860-1917.
- CLARKE, J. M. Biographical memoir of William Bullock Clark, 1860-1917. Nat. Acad. of Sci., Biog. Mem. 9, 1919: 13-18. (102 entries. 1887-1917. Chronol.)
- CLARKE, J. M. Memorial of William Bullock Clark. Geol. Soc.

*Not seen.

- Am., Bull. 29, 1917: 24-29. (102 entries. 1887-1917. Chronol.)
- 2981 **CLAYPOLE, EDWARD WALLER**, 1835-1901.
BRIDGE, NORMAN. Edward Claypole—the man. Am. Geol., 29, 1902: 40-47. (150 entries. 1870-98. Chronol.)
COMSTOCK, T. B. Memoir of Edward Waller Claypole. Geol. Soc. Am., Bull. 13, 1902: 491-496. (149 entries. 1870-1901. Chronol.)
- 2982 **COHEN, EMIL WILHELM**, 1842-1905.
DEECKE, W. Emil Cohen. Centralb. f. Min., 1905: 524-530. (123 entries. 1871-1905. Chronol.)
- 2983 **COLLOT, LOUIS MARIE FRANCOIS**, 1846-1915.
JOURDY. Liste des publications de Louis Collot. Soc. géol. France, Bull., 4th ser. 16, 1916: 245-248. (71 entries. 1873-1915. Chronol.)
- 2984 **COMMONT, VICTOR**, 1866-1918.
LAMOTHE, L. DE. Liste des principaux ouvrages de Commont. Soc. géol. France, Bull. 4th ser. 19, 1919: 127-128. (27 entries. 1905-17. Chronol.)
- 2985 **COMSTOCK, THEODORE BRYANT**, 1849-1915.
RIES, HEINRICH. Memorial of Theodore Bryant Comstock. Geol. Soc. Am., Bull. 27, 1915: 13-15. (33 entries. 1873-1907. Chronol.)
- 2985a **CONTEJEAN, CHARLES**, 1824-1907.
*FALLOT, EMMANUEL. Notice sur Charles Contejean. 1824-1907. Mém. Soc. d'Emulation de Montbéliard 35, 1908: 100-105.
- 2986 **CONDON, THOMAS**, 1822-1907.
WASHBURN, C. W. Thomas Condon. Journ. Geol., 15, 1907: 282 (8 entries. 1871-1906. Chronol.)
- 2987 **COOK, GEORGE HAMMELL**, 1818-89.
GILBERT, G. K. Memoir of George Hammell Cook. 1818-1889. [With bibliography.] Nat. Acad. Sci., Biog. Mem. 4, 1902: 143-144. (22 entries. 1853-89. Chronol.)
- 2988 **COOPER, JAMES GRAHAM**, 1830-1902.
RAYMOND, W. J., comp. Writings of James G. Cooper, M.D., on conchology and palaeontology, with list of species described by him. Nautilus, 17, 1903: 6-12. (48 entries. 1859-96. Chronol.)
- 2989 **COPE, EDWARD DRINKER**, 1840-97.
FRAZER, PERSIFOR. Alphabetical cross reference catalogue of all the publications of Edward Drinker Cope, from 1859 till his death in 1897. Soc. cient. "Antonio Alzate," Mem. 14, 1900: 39-72, 233-256, 439-466: 15, 1900: 31-96. (1859-97. Alphabet.)
FRAZER, PERSIFOR. Catalogue chronologique des publications de Edward Drinker Cope de 1859 à 1897 inclusivement. Soc. géol. Belg., Ann. 29, 1901-02: BB3-BB77. (1216 entries. 1859-1900. Chronol.)
KING, H. D. Edward Drinker Cope. Am. Geol., 23, 1899: 10-41. (815 entries. 1859-97. Chronol.)
- 2990 **COSTA SENA, JOAQUIM CANDIDO DA**, 1852-1919.
BRANNER, J. C. Memorial of Joaquim Candido da Costa Sena. Geol. Soc. Am., Bull. 32, 1920: 17-18. (20 entries. 1883-1919. Chronol.)
- 2991 **CORNU, FELIX**, 1882-1909.
GÖRGEY, R. Verzeichnis der Arbeiten Cornu's. Centralb. f. Min. 1910: 123-127. (88 entries. 1905-09. Chronol.)
- 2992 **CREDNER, CARL HERMANN**, 1841-1913.
ETZOLD, FRANZ. Zu Hermann Credner's Gedächtnis. Centralb. f. Min., 1914: 587-592. (102 entries. 1864-1910. Chronol.)
WAHNSCHAFTE, FELIX. Zum Gedächtnis Hermann Credner. Deutsch. geol. Gesell., Zeit. 65, 1913: Monatsb. 482-488. (129 entries. 1864-1912. Chronol.)
- 2993 **CRICK, GEORGE CHARLES**, 1856-1917.
WOODWARD, B. B. [Obituary.] Geol. Mag., n. s. (VI) 4, 1917: 557-560. (67 entries. 1889-1917. Chronol.)
- DAINTREE, RICHARD**, 1831-1878.
See 3242.
- 2994 **DAMES, WILHELM BARNIM**, 1843-98.
FRECH, FR. Wilhelm Barnim Dames. Geol. u. paläont. Abh., n. f. 4, hft. 2, 1898: vi-viii. (101 entries. 1868-97. Chronol.)
KOKEN, E. Wilhelm Barnim Dames. N. J. f. Min., 1899-I:

*Not seen.

- 9-14. (100 entries. 1868-99. Chronol.)
- 2995 **DAMOUR, ALEXIS**, 1808-1902.
LACROIX, A. Liste des travaux de A. Damour. Soc. franç. min., Bull. 28, 1905: 84-95. (136 entries. 1857-94. Chronol.)
- 2996 **DANA, JAMES DWIGHT**, 1813-95.
GILMAN, D. C. The life of James Dwight Dana. . . . N. Y. and London, 1899, 409 pp. (Bibl., 385-394. 217 entries. 1835-95. Chronol.)
- LE CONTE, JOSEPH. Memoir of James Dwight Dana. Geol. Soc. Am., Bull. 7, 1896: 474-479. (165 entries. 1835-95. Chronol.)
- PIRSSON, L. V. Biographical memoir of James Dwight Dana, 1813-1895. Nat. Acad. Sci., Biog. Mem. Vol. 9, 1919: 83-92. (217 entries. 1835-95 Chronol.)
- 2997 **DAUBREE, AUGUSTE**, *i. e.* **GABRIEL AUGUSTE**, 1814-96.
LAPPARENT, A. DE. Liste chronologique des principaux ouvrages et mémoires. . . . Soc. géol. France, Bull. 3d ser. 25, 1897: 259-284. (439 entries. 1838-96. Chronol.)
- 2998 **DAVIS, CHARLES ALBERT**, 1861-1916.
LANE, A. C. Memorial of Charles A. Davis. Geol. Soc. Am., Bull. 28, 1916: 38-40. (59 entries. 1894-1916. Chronol.)
- 2999 **DAWKINS, WILLIAM BOYD**, 1838-
WATSON, D. M. S., comp. List of publications. Geol. Mag., n. s. (V) 6, 1909: 531-534. (77 entries. 1862-1907. Chronol.)
- 3000 **DAWSON, GEORGE MERCER**, 1849-1901.
AMT, H. M. Bibliography. Geol. Soc. Am., Bull. 13, 1902: 502-509. (99 entries. 1874-1901. Chronol.)
- AMT, H. M. Bibliography of Dr. George M. Dawson. Canad. Rec. Sci., 8, 1902: 503-516. Ottawa Nat., 15, 1901: 203-213. Am. Geol., 28, 1901: 76-86. (131 entries. 1870-1901. Chronol.)
- AMT, H. [M]. Bibliography of Dr. George Mercer Dawson. Roy. Soc. Canada, Proc. and Trans. 2d ser. 8-IV, 1902: 192-201. (133 entries. 1870-1901. Chronol.)
- 3001 **DAWSON, Sir JOHN WILLIAM**, 1820-1899.
AMT, H. M. Bibliography of Sir John William Dawson. Roy. Soc. Canada, Trans. 2d ser. 7-IV, 1901: 15-44. Am. Geol., 26, 1900: 14-48. (514 entries. 1842-1901. Chronol.)
- 3002 **DE GEER, GERARD JAKOB**, Baron, 1858-
DE GEER, E. H. Bibliographia De Geeriana, Professor Gerard de Geers publikationer 1881-1918. Geol. Fören. Stockh. Förh., 40, 1918: 811-845. (251 entries + 81 maps. 1881-1918. Chronol.)
- 3003 **DELGADO, JOAQUIM FILIPPE NERY DA ENCARNACAO**, 1835-1908.
CHOFFAT, PAUL. Notice nécrologique sur J. F. Nery Delgado. Portugal. Serv. géol., Comm. 7, 1907-09: xvii-xxi. (62 entries. 1867-1909. Subj. Chronol.)
- DELGADO, J. F. N. Étude sur les fossiles des schistes à nérites de San Domingos . . . (ouvrage posthume). Lisbonne, 1910, 68 pp. Portugal. Serv. géol., Comm. Terrains paléozoïques du Portugal (Publ., [ix]. 22 entries. 1870-1910. Chronol.)
- 3004 **DELVAUX, ÉMILE**, 1837-18? .
Liste des publications d'Émile Delvaux. Soc. géol. Belg., Ann. 29, 1901-02: B82-B91. (86 entries. 1874-97. Chronol.)
- 3005 **DENINGER, KARL**, 1878-1917.
WILCKENS, O. Karl Deninger. Geol. Rundsch., 9, 1918: 64. (13 entries. 1901-14. Chronol.)
- 3006***DEPÉRET, CHARLES JEAN JULIEN**, 1854-
Notice sur les travaux scientifiques de M. Depéret. Lyon, 1913, pp. 1-73.
- 3007 **DERBY, ORVILLE ADELBERT**, 1851-1915.
BRANNER, J. C. Memorial of Orville A. Derby. Geol. Soc. Am., Bull. 27, 1915: 21. (15 entries. 1907-15. Chronol.)
- 3008 **DES CLOIZEAUX, ALFRED LOUIS OLIVIER LEGRAND**, 1817-97.
LACROIX, A. A. Des Cloizeaux. Liste des ouvrages et mémoires. Soc. franç. min., Bull. 20, 1897: 278-287. (207 entries. 1842-94. Chronol.)
- 3009 **DEWALQUE, GUSTAVE**, 1826-1905.
Liste des travaux publiés par G. Delwalque (1851-1905). Soc. géol. Belg., Ann. 38, 1910-11: B127-B158. (1914 entries. 1851-1905. Chronol.)

*Not seen.

- 3010 **DOKUČAJEV, V. V.**
 KRIŠTAFOVIČ, N. Aperçu des travaux de V. V. Dokucajev. [In Russian]. Ann. géol. et min. Russ., 7-I, 1904: 23-38. (151 entries. 1871-94. Chronol.)
 *KRIŠTAFOVIČ, N. Liste des travaux du prof. V. Dokučaeu. Pédologie, St. Petersburg, 1903: 431-441.
- 3011 **DOSS, KARL BRUNO, 1861-1919.**
 BECK, RICHARD. Verzeichnis der Veröffentlichungen von Bruno Doss. Centralb. f. Min., 1919: 263-268. (75 entries. 1886-1915. Chronol.)
- 3012 **DOUVILLÉ, HENRI, i. e. JOSEPH HENRI FERDINAND, 1846-**
 *Notice sur ses travaux scientifiques. Lille, 1903, 110 pp.
- 3013 **DOUVILLÉ, ROBERT, 1881-1915.**
 BLAYAC, J. Liste des publications de Robert Douvillé. Soc. géol. France, Bull. 4th ser. 18, 1918: 333-336. (55 entries. 1903-16. Chronol.)
- 3014 **DOUXAMI, HENRI, 1871-1913.**
 VACHER, A. Bibliographie des principales publications de Henri Douxami. Soc. géol. Nord, Ann. 42, 1913: 352-359. (97 entries. 1895-1913. Subj. Chronol.)
- 3015 **DRYSDALE, CHARLES WALES, 1885-1917.**
 BANCROFT, J. A. Memorial of Charles Wales Drysdale. Geol. Soc. Am., Bull. 29, 1917: 34-35. (12 entries. 1911-17. Chronol.)
 WILLIAMS, M. Y. The late Dr. C. W. Drysdale. Canad. Min. Inst., Bull. 69, 1918: 70. (14 entries. 1911-17. Chronol.)
- 3016 **DUFET, HENRY, 1848-1905.**
 WYROUBOFF, G. Liste des travaux de M. H. Dufet. Soc. franç. min., Bull. 28, 1905: 253-258. (47 entries. 1857-1904. Chronol.)
- 3016a **DU PASQUIER, LÉON, 1864-1897.**
 *TRIBOLET, M. DE. Léon Du Pasquier, 1864-1897. Soc. Sc. Nat. Neuchâtel, Bull. 25, 1897: 60-62.
- 3017 **DUTTON, CLARENCE EDWARD, 1741-1912.**
 DILLER, J. S. Major Clarence Edward Dutton. Seis. Soc. Am., Bull. 1, 1911: 142. (16 entries. 1874-1906. Chronol.)
 DILLER, J. S. Memoir of Clarence Edward Dutton. Geol. Soc. Am., Bull. 24, 1912: 17-18. (26 entries. 1873-1906. Chronol.)
- 3018 **EASTMAN, CHARLES ROCHES-TER, 1868-1918.**
 DEAN, BASHFORD. Memorial of Charles Rochester Eastman. Geol. Soc. Am., Bull. 30, 1918: 31-36. (100 entries. 1894-1915. Chronol.)
- 3019 **EBERT, THEODOR, 1857-99.**
 Theodor Ebert. Prussia. Geol. Landesanst., Jahrb. 20, 1900: cxix-cxx. (29 entries. 1881-98. Chronol.)
- 3020 **EGLESTON, THOMAS, 1832-1900.**
 MOSES, A. J. Professor Thomas Egleston. Sch. Min. Quart., 21, 1900: 214-218. (115 entries. 1863-95. Chronol.)
- 3021 **ELDRIDGE, GEORGE HOMANS, 1854-1905.**
 CROSS, WHITMAN. Memoir of George H. Eldridge. Geol. Soc. Am., Bull. 17, 1906: 686-687. (22 entries. 1886-1906. Chronol.)
 EMMONS, S. F. Biographical notice of George H. Eldridge. Am. Inst. M. E., Trans. 37, 1907: 348-349. (19 entries. 1886-1903. Chronol.)
- 3022 **EMMONS, SAMUEL FRANKLIN, 1841-1911.**
 BECKER, G. F. Biographical notice of Samuel Franklin Emmons. Am. Inst. M. E., Trans. 42, 1912: 656-661. (94 entries. 1870-1910. Chronol.)
 HAGUE, ARNOLD. Biographical memoir of Samuel Franklin Emmons, 1841-1911. Nat. Acad. Sci., Biog. Mem. 7, 1912: 330-334. (95 entries. 1870-1910. Chronol.)
 HAGUE, ARNOLD. Memoir of Samuel Franklin Emmons. Geol. Soc. Am., Bull. 23, 1912: 24-28. (94 entries. 1870-1910. Chronol.)
- 3023 **ESCHWEGE, WILHELM LUDWIG VON, 1777-1855.**
 CHOFFAT, PAUL. Biographies de géologues portugais. . . . Portugal. Serv. géol., Comm.
 1. ESCHWEGE, W. L. VON, 1777-1855. Vol. 9, 1912-13: 185-190, 212-213. (60 entries. 1804-50. Chronol.)
 2. GOMES, JACINTO PEDRO, 1844-1916. Vol. 11, 1915-1916: 129-131. (3 entries. 1888-1916. Chronol.)
 3. VASCONCELLOS PEREIRA CABRAL, FREDERICO AUGUSTO DE. Vol. 12, 1917: 275. (3 entries. 1865-67. Chronol.)

*Not seen.

4. RIBEIRO, CARLOS, 1813-82. Vol. 12, 1917: 277-281. 54 entries. 1850-81. Chronol.)
5. SOUZA-BRANDAO, VICENTE DE, 1863-1916. Vol. 12, 1917: 282-283. (14 entries. 1912-17. Chronol.)
- 3024 ETHERIDGE, ROBERT, 1819-1903. Obituary. Geol. Mag., n. s. (V) 1, 1904: 46-48. (51 entries. 1858-1900. Chronol.)
- ETHERIDGE, ROBERT, jr. 1846-1920. See 3242.
- 3025 ETTINGSHAUSEN, CONSTANTIN, *Freiherr VON*, 1826-97.
- HOERNEZ, R. Sur Erinnerung an Constantin Freiherrn von Ettingshausen. Nat. Ver. Steiermark, Mitth. 34, 1897: 94-106. (194 entries. 1849-96. Chronol.)
- 3026 EVANS, Sir JOHN, 1823-1908. Eminent living geologists: Sir John Evans. Geol. Mag., n. s. (V) 5, 1908: 8-9. (44 entries. 1860-1907. Chronol.)
- EYMAR, CARL DAVID WILHELM MAYER. See MAYER-EYMAR CARL DAVID WILHELM.
- 3027 FABRE, GEORGES.
- JOURDY, . Georges Fabre. Notice nécrologique. Soc. géol. France, Bull. 4th ser. 12, 1912: 375-376. (40 entries. 1866-1911. Chronol.)
- 3028 FALSAN, ALBERT, 1833-1902.
- CHANTRE, ERNEST. Notice sur la vie et les travaux d'Albert Falsan. Soc. anthro. Lyon, Bull. 21, 1902: 114-116. (27 entries. 1863-95. Chronol.)
- 3029 FENNEMA, REINDER, 1849-97?
- VERBEEK, R. D. M. Levensbericht van Reinder Fennema. Jaarb. Mijnw. Ned. O.-Ind. 1903: 145-147. (19 entries. 1875-97. Chronol.)
- 3030 FINO, VINCENZO, 1848-1914.
- PARONA, C. F. Vincenzo Fino. Soc. geol. ital., Boll. 33, 1914: xlv-xlv. (10 entries. 1881-1910. Chronol.)
- 3031 FIRKET, ADOLPHE, 1837-1905.
- FORIR, H. Adolphe Firket . . . sa vie, son oeuvre. Soc. géol. Belg., Ann. 32, 1904-05: B173-B179. (93 entries. 1863-1903. Chronol.)
- 3032 FLAMAND, GEORGES BARTHÉL MEDÉRIC, 1861-
- *Titres et travaux scientifiques. Alger, 1914, 33 pp.
- 3033 FONTAINE, WILLIAM MORRIS, 1835-1913.
- WATSON, T. L. Memorial of William M. Fontaine. Geol. Soc. Am., Bull. 25, 1913: 10-13. (43 entries. 1872-1905. Chronol.)
- 3034 FOOTE, ALBERT E., 1846-95.
- KUNZ, G. F. Memoir of Albert E. Foote. Geol. Soc. Am., Bull. 7, 1896: 485. (12 entries. 1873-93. Chronol.)
- 3035 FOREL, FRANÇOIS ALPHONSE, 1841-1912.
- *BLANC, H. Le professeur Dr. François Alphonse Forel, 1841-1912. Schw. naturf. Gesell., Verh. 95, 1912: 133-148.
- BRÜCKNER, ED. Verzeichnis der Schriften F.-A. Forels über Gletscher. Zeit. f. Gletscherk., 7, 1912-13: 70-73. (90 entries. 1871-1912. Chronol.)
- 3036 FORESTI, LODOVICO, 1829-1913.
- PANTANELLI, D. Bibliografia geologica e paleontologica. Soc. geol. ital., Boll. 32, 1913: cvii-cviii. (20 entries. 1868-96. Chronol.)
- 3037 FORIR, HENRI, 1856-1907.
- FOURMARIER, P. Henri Forir . . . sa vie, son oeuvre. Soc. géol. Belg., Ann. 34, 1906-1907: B174-B183. (170 entries. 1880-1905. Chronol.)
- 3038 FOUQUÉ, FERDINAND ANDRÉ, 1828-1904.
- GAUBERT, P. Liste bibliographique des travaux de F.-A. Fouqué (1853-1903). Soc. franç. min., Bull. 28, 1905: 47-56. (107 entries. 1853-1903. Chronol.)
- 3039 FOX-STRANGWAYS, CHARLES EDWARD, 1844-1910.
- W[OODWARD], H. B. Obituary. Geol. Mag., n.s. (V) 7, 1910: 237-238. (37 entries. 1873-1909. Chronol.)
- 3040 FRAAS, EBERHARD, 1862-1915.
- Eberhard Fraas. Paläont. Zeit., 2, 1918: viii-x. (35 entries. 1886-1913. Subj.)
- STROMER, ERNST. Wichtigste Veröffentlichungen. Centralb. f. Min., 1915: 357-359. (44 entries. 1886-1913. None.)
- 3041 FRAIPONT, JULIEN, 1857-1910.
- Publications de Julien Fraipont. Soc. géol. Belg., Ann. 41, 1913-1914: B345-B350. (78 entries. 1877-1910. Subj. Chronol.)
- 3042 FRANCO, PASQUALE, 1852-1907.
- SCACCHI, E. Pasquale Franco. Soc. géol. ital., Boll. 26, 1907: cxxv-cxxvi. (37 entries. 1880-1902. Chronol.)

*Not seen.

- 3043 **FRAZER, PERSIFOR**, 1844-1909.
PENROSE, R. A. F., jr. Memoir of Persifor Frazer. Geol. Soc. Am., Bull. 21, 1909: 10-12. (40 entries. 1873-1906. Chronol.)
- 3044 **FRECH, FRITZ**, 1861-1917.
POMPECKJ, J. F. Fritz Frech. N. J. f. Min., 1919: xxx-xxxviii. (156 entries. 1885-1917. Subj.)
- 3045 **FRENZEL, FRIEDRICH AUGUST**, 1842-1902.
BECK, [R.]. Friedrich August Frenzel. Centralb. f. Min., 1902: 644-646. (46 entries. 1870-1902. Chronol.)
- 3046 **FRIEDEL, CHARLES**, 1832-98.
BAUER, MAX. Charles Friedel. Centralb. f. Min., 1900: 64-68. (80 entries. 1856-99. Chronol.)
CURIE, P. Charles Friedel. Liste des travaux de minéralogie et de chimie minérale. Soc. franç. min., 23, 1900: 183-190. (113 entries. 1860-91. Chronol.)
- 3047 **FULLER, HOMER T.** 1838-1908.
HOVEY, E. O. Memoir of Homer T. Fuller. Geol. Soc. Am., Bull. 20, 1910: 618. (3 entries. 1892-1904. Chronol.)
- 3048 **GABB, WILLIAM MORE**, 1839-79.
DALL, W. H. Bibliographical memoir of William More Gabb. 1839-1879. Nat. Acad. Sci., Biog. Mem. 6, 1909: 356-361. (88 entries. 1859-62. Chronol.)
- 3049 **GAUDRY, JEAN ALBERT**, 1827-1908.
BOULE, MARCELLIN. Liste des ouvrages et mémoires publiés de 1850 à 1909 par A. Gaudry. Mus. hist. nat. Paris, Nouv. Arch. (5) 1909: ci-cxvi. (201 entries. 1850-1909. Chronol.)
THEVENIN, ARMAND. Liste des publications d'Albert Gaudry (1850-1909). Soc. géol. France, Bull. 4th ser. 10, 1910: 364-374. (219 entries. 1850-1909. Subj. Chronol.)
- 3050 **GAUTHIER, VICTOR AUGUSTE**, 1837-1911.
LAMBERT, J. Liste des publications scientifiques de Victor Gauthier. Soc. géol. France, Bull. 4th ser. 11, 1911: 160-161. (27 entries. 1868-1903. Chronol.)
- 3051 **GEIKIE, JAMES**, 1839-1915.
Eminent living geologists: James Geikie. Geol. Mag., n. s. (V) 10, 1913: 245-248. (98 entries. 1866-1912. Chronol.)
- HORNE, JOHN. The influence of James Geikie's researches on the development of glacial geology. Roy. Soc. Edinb., Proc. 36, 1915-16: 20-25. (100 entries. 1866-1914. Chronol.)
- NEWBIGIN, M. I., and FLEET, J. S. James Geikie: the man and the geologist. Edinburgh, 1917, 227 pp. (Publ., 214-219. 100 entries. 1866-1914. Chronol.)
- 3052 **GEINITZ, HANNS BRUNO**, 1814-1900.
GEINITZ, E. Gedruckte Abhandlungen und Schriften von H. B. Geinitz. Centralb. f. Min., 1900: 12-21. (188 entries. 1837-99. Chronol.)
- 3053 **GENTH, FREDERICK AUGUSTUS**, 1820-93.
BARKER, G. F. Memoir of Frederick Augustus Genth. 1820-93. Nat. Acad. Sci., Biog. Mem. 4, 1902: 222-231. (102 entries. 1842-91. Chronol.)
- 3054 **GESNER, ABRAHAM**, 1797-1864.
MATTHEW, G. F. Abraham Gesner. A review of his scientific work. Nat. Hist. Soc. New Brunswick, Bull. 15, 1897: 3-48. (ca 15 entries. 1836-47. Footnotes.)
- 3055 **GILBERT, GROVE KARL**, 1843-1918.
WOOD, B. D., and COTTLE, G. B. Bibliography. Geol. Soc. Am., Bull. 31, 1919: 45-64. (400 entries. 1867-1917. Chronol.)
- GOMES, JACINTO PEDRO**, 1844-1916. See 3023.
- 3056 **GOSSELET, JULES AUGUSTE ALEXANDRE**, 1832-1916.
Liste des ouvrages de M. Jules Gosselet. Soc. géol. Nord, Ann. 31, 1903: 267-296. (381 entries. 1857-1902. Chronol.)
*Notice sur les travaux scientifiques de J. Gosselet. Lille, 1912, pp. 1-26.
- 3057 **GOTTSCHE, CARL CHRISTIAN**, 1855-1909.
WOLFF, WILHELM. Carl Christian Gottsche. Deutsch. geol. Gesell., Zeit. 61, 1909: 423-425. (67 entries. 1875-1909. Chronol.)
- 3058 **GOULD, AUGUSTUS ADDISON**, 1805-66.
WYMAN, JEFFRIES. Biographical memoir of Augustus Addison Gould, 1805-66. Nat. Acad. Sci., Biog. Mem. 5, 1905: 106-113. (125 entries. 1832-65. Chronol.)

* Not seen.

- 3059 **GRAD, CHARLES**, 1842-
FAUDEL, Charles Grad. Notice biographique et bibliographique. Naturh. Gesell. Colmar, Mitth. n. f. 8, 1905-06. 103-142. (43 entries. 1861-80. Chronol.)
- 3060 **GRAMONT, ARNAUD DE**.
*Notice sommaire sur les travaux scientifiques. Paris, 1910, 36 pp.
- 3061 **GRAND'EURY, FRANCOIS CYRILLE**, 1839-1917.
BERTRAND, PAUL. Liste des principales publications de Grand'Eury. Soc. géol. France, Bull. 4th ser. 19, 1919: 160-162. (36 entries. 1869-1913. Chronol.)
- 3062 **GREBE, HEINRICH**, 1831-1903.
LEPPLA, A. Heinrich Grebe. Prussia. Geol. Landesanst. Jahrb. 24, 1907: 818-819. (53 entries. 1873-99. Chronol.)
- 3063 **GREEN, WILLIAM LOWTHIAN**, 1819-90.
HITCHCOCK, C. H. Hawaii and its volcanoes. Honolulu, 1909, 314 pp. (Published writings, 304-305. 8 entries. 1856-90. Chronol.)
- 3064 **GUMBEL, KARL WILHELM VON**, 1823-98.
AMMON, LUDWIG VON. Wilhelm von Gumbel. Geogn. Jahresh., 11, 1898: 28-37. (204 entries. 1846-98. Chronol.)
- 3065 **GUEYMARD, FRANCOIS EMILE**, 1788-1869.
KILIAN, M. W. Trois doyens de la faculté des sciences de Grenoble. Grenoble, Univ. Lab. géol., Trav. 10, fasc. 1, 1911-12: 96-106. (105 entries. 1814-69. Chronol.)
- 3065a **GUTZWILLER, ANDREAS**, 1845-1917.
BUXTORF, A., Dr. phil. h. c. Andreas Gutzwiller, 1845-1917. Schw. naturf. Gesell., Verh. 1918: 121-122. (28 entries. 1873-1917. Chronol.)
SCHMIDT, C. Worte der Erinnerung . . . Dr. Andreas Gutzwiller, Geb. 12. Sept. 1845, Gest. 14. Sept. 17. Schw. naturf. Gesell., Verh. 29, 1918: 119-121. (28 entries. 1873-1917. Chronol.)
See 3185.
- 3066 **HABETS, ALFRED**, 1839-1908.
RENIER, ARMAND. Alfred Habets . . . sa vie, son oeuvre géologique. Soc. géol. Belg., Ann. 36, 1908-09: B331-B337. (123 entries. 1869-1907. Subj. Chronol.)
- 3067 **HAGUE, ARNOLD**, 1840-1917.
IDDINGS, J. P. Biographical memoir of Arnold Hague. 1840-1917. Nat. Acad. Sci., Biog. Mem. 9, 1919: 36-38. (45 entries. 1870-1913. Chronol.)
IDDINGS, J. P. Memorial of Arnold Hague. Geol. Soc. Am., Bull. 29, 1917: 46-48. (44 entries. 1870-1913. Chronol.)
- 3068 **HALL, CHRISTOPHER WEBBER**, 1845-1911.
WINCHELL, N. H. Memoir of Christopher Webber Hall. Geol. Soc. Am., Bull. 23, 1912: 29-30. (28 entries. 1879-1911. Chronol.)
- 3069 **HALL, JAMES**, 1811-98.
HOVEY, H. C. The life and work of James Hall, LL. D. Am. Geol., 23, 1899: 149-168. (302 entries. 1836-95. Chronol.)
STEVENSON, J. J. Memoir of James Hall. Geol. Soc. Am., Bull. 10, 1899: 436-451. (267 entries. 1843-95. Chronol.)
- 3070 **HARKER, ALFRED**, 1859-
Eminent living geologists: Alfred Harker. Geol. Mag., n. s. (VI) 4, 1917: 292-294. (69 entries. 1884-1917. Chronol.)
- 3071 **HARTT, CHARLES FREDERICK**, 1840-78.
SIMONDS, F. W. Professor Ch. Fred. Hartt. M. A.—A tribute. Am. Geol., 19, 1897: 87-90. (43 entries. 1864-96. Chronol.)
- 3072 **HATCHER, JOHN BELL**, 1861-1904.
HATCHER, J. B. Scientific contributions . . . in chronological order. U. S. Geol. Surv., Mon. 49, 1907: xxv-xxvi. (52 entries. 1893-1907. Chronol.)
SCHUBERT, CHARLES. John Bell Hatcher. Am. Geol., 35, 1905: 139-141. (48 entries. 1893-1903. Chronol.)
SCOTT, W. B. Memoir of John B. Hatcher. Geol. Soc. Am., Bull. 16, 1905: 553-555. (47 entries. 1893-1904. Chronol.)
- 3073 **HAUCHECORNE, HEINRICH LAMBERT WILHELM**, 1824-1900.
BEYSCHLAG, FR. Gedächtnissrede auf Wilhelm Hauchecorne . . . Prussia. Geol. Landesanst., Jahrb. 21, 1901: cxii-cxiv. (62 entries. 1863-99. Chronol.)
- 3074 **HAUER, FRANZ, Ritter VON**, 1822-99.
TRETZE, EMIL. Franz v. Hauer. Sein Lebensgang und seine wissenschaftliche Thätigkeit. Austria. Geol. Reichsanst., Jahrb.

*Not seen.

- 49, 1899: 793-825. (360 entries. 1846-97. Chronol.)
- 3075 **HAÛY, RENÉ JUST**, 1743-1822.
KUNZ, G. F. The life and work of Haüy. *Am. Min.*, 3, 1918: 88-89. (32 entries. 1784-1818. Chronol.)
- 3076 **HAUG, ÉMILE**, 1861-
*Notice sur les travaux scientifiques de M. Émile Haug. Lille, 1903, 96 pp.
*Notice sur les travaux scientifiques, supplément. Lille, 1908, 36 pp.
*Notice sur les travaux scientifiques d'E. Haug (2e supplément). Paris, 1912, 20 pp.
- 3077 **HAUTEFEUILLE, P. G.** 1836-1902.
WALLERANT, F. Liste des mémoires publiés par P. Hautefeuille. *Soc. franç. min.*, Bull. 26, 1903: 169-177.
- 3078 **HAWES, GEORGE W.** 1848-82.
Bibliography of G. W. Hawes. In Penfield, S. L., and Pirsson, L. V. Contribution to mineralogy and petrography . . . of Yale University, 1901: 392-393. (20 entries. 1874-81. Chronol.)
- 3079 **HAY, ROBERT**, 1835-95.
HILL, R. T. Memoir of Robert Hay. *Geol. Soc. Am.*, Bull. 8, 1897: 372-374. (38 entries. 1880-96. Chronol.)
THOMPSON, A. H. Robert Hay. *Kansas Acad. Sci.*, Trans. 15, 1898: 133-134. (41 entries. 1880-96. Chronol.)
- 3080 **HAYES, CHARLES WILLARD**, 1858-1916.
BROOKS, A. H. Memorial of Charles Willard Hayes. *Geol. Soc. Am.*, Bull. 28, 1916: 118-123. (97 entries. 1887-1912. Chronol.)
- 3081 **HEILPRIN, ANGELO**, 1853-1907.
GREGORY, H. E. Memoir of Angelo Heilprin. *Geol. Soc. Am.*, Bull. 19, 1908: 531-536. (112 entries. 1876-1908. Chronol.)
- 3082 **HEIM, ALBERT**, 1849-
BÖHI, ALICE. Verzeichnis der publikationen von Albert Heim. *Naturf. Gesell. Zürich*, Vier. 64, 1919: 499-518. (328 entries. 1866-1919. Subj. Chronol.)
- 3083 **HENRICH, FERDINAND**, 1837-1915.
Ferdinand Henrich. *Centralb. f. Min.*, 1916: 170. (14 entries. 1876-1910. Chronol.)
- 3084 **HERRICK, CLARENCE LUTHER**, 1858-1904.
BAWSON, H. H. Bibliography of C. L. Herrick. Denison Univ., Sci. Lab., Bull. 13, 1905-1907: 28-33. (138 entries. 1877-1907. Chronol.)
TIGHT, W. G. Clarence Luther Herrick. *Am. Geol.*, 36, 1905: 19-26. (141 entries. 1879-1905. Chronol.)
- 3085 **HIDDEN, WILLIAM EARL**, 1853-1918.
KUNZ, G. F. William Earl Hidden. *Am. Min.*, 4, 1919: 144-145. (41 entries. 1871-1906. Chronol.)
- 3086 **HILGARD, EUGENE WOLDEMAR**, 1833-1916.
SLATE, FREDERICK. Biographical memoir of Eugene Woldemar Hilgard 1833-1916. *Nat. Acad. of Sci.*, Biog. Mem. 9, 1919: 143-155. (326 entries. 1854-1916. Chronol.)
SMITH, E. A. Memorial of Eugene Woldemar Hilgard. *Geol. Soc. Am.*, Bull. 28, 1916: 54-67. (326 entries. 1854-1916. Chronol.)
- 3087 **HILL, FRANK A.** 1858-1915.
HALBERSTADT, BAIRD. Memorial of Frank A. Hill. *Geol. Soc. Am.*, Bull. 28, 1916: 69-70. (9 entries. 1885-86? Chronol.)
- 3088 **HIND, WHEELTON**, 1860-1920.
S., A. Obituary. *Geol. Mag.*, 57, 1920: 477-480. (90 entries. 1889-1920. Chronol.)
- 3089 **HINDE, GEORGE JENNINGS**, 1839-1918.
WOODWARD, HENRY. Obituary. *Geol. Mag.*, n. s. (VI) 5, 1918: 237-240. (74 entries. 1877-98. Chronol.)
- 3090 **HITCHCOCK, CHARLES HENRY**, 1836-1919.
UPHAM, WARREN. Memorial of Charles Henry Hitchcock. *Geol. Soc. Am.*, Bull. 31, 1919: 70-80. (238 entries. 1855-1909. Chronol.)
- 3091 **HÖGBOM, ARVID GUSTAF**, 1857-
HULTH, J. M. Bibliographia Högbomiana. A list of the writings of Prof. A. G. Högbom. *Upsala, Univ.*, Bull. *Geol. Inst.* 15, 1916: v-xv. (145 entries. 1881-1916. Chronol.)
- 3092 **HOERNES, RUDOLF**, 1850-1912.
HERITSCH, FRANZ. Zur Erinnerung an Rudolf Hoernes. *Naturw. Ver. Steiermark*, Mitth. 49 (1912) 1913: 36-58. (249 entries. 1872-1912. Chronol.)
- 3092a **HOLGATE, BENJAMIN**, 1838-1915.
HAWKESWORTH, E. In memoriam. Benjamin Holgate, F. G. S.

* Not seen.

- (1838-1915). Yorks. Geol. Soc., Proc. n. s. 19, pt. 4, 1918: 322-323. (5 entries. 1877-92. Chronol.)
- 3093 **HOLMES, JOSEPH AUSTIN**, 1859-1915.
 PRATT, J. H. Memorial of Joseph Austin Holmes. Geol. Soc. Am., Bull. 27, 1915: 31-35. (75 entries. 1883-1914. Chronol.)
 PRATT, J. H. Memorial sketch of Dr. Joseph Austin Holmes. Elisha Mitchell Sci. Soc., Journ. 32, 1916: 11-15. (75 entries. 1883-1914. Chronol.)
- 3094 **HOVEY, HORACE CARTER**, 1833-1914.
 CLARKE, J. M. Memoir of Horace Carter Hovey. Geol. Soc. Am., Bull. 26, 1914: 25-27. (56 entries. 1874-1913. Chronol.)
- 3095 **HUBBARD, OLIVER PAYSON**, 1809-1900.
 HOVEY, E. O. Oliver Payson Hubbard. Am. Geol., 25, 1900: 362-363. (19 entries. 1837-94. Chronol.)
- 3096 **HUDLESTON, WILFRID HUDLESTON**, 1828-1909.
 Eminent living geologists: Wilfrid Hudleston. Geol. Mag., n. s. (V) 1, 1904: 436-438. (58 entries. 1872-1904. Chronol.)
- 3097 **HUGHES, THOMAS MCKENNY**, 1832-1917.
 Eminent living geologists: Thomas McKenny Hughes. Geol. Mag., n. s. (V) 3, 1906: 10-13. (92 entries. 1866-1905. Chronol.)
- 3098 **HUSSAK, FRANCIS EUGENE**, 1856-1911.
 IHERING, HERMANN VON. Necrologio. Dr. Eugenio Hussak. Mus. Paul., Rev. 9, 1914: 46-54. (67 entries. 1876-1909. Chronol.)
- 3099 **HYATT, ALPHEUS**, 1838-1902.
 BROOKS, W. K. Biographical memoir of Alpheus Hyatt. 1838-1902. Nat. Acad. Sci., Biog. Mem. 6, 1909: 322-325. (101 entries. 1864-1905. Chronol.)
 CROSBY, W. O. Memoir of Alpheus Hyatt. Geol. Soc. Am., Bull. 14, 1903: 509-512. (76 entries. 1865-99. Chronol.)
- 3100 **IHERING, HERMANN VON**, 1850-
 Bibliographia dos trabalhos científicos do Dr. Hermann von Ihering (1872-1911). Mus. Paul., Rev. (Notes preliminares) 1, fasc. 2, 1911: 1-39. (270 entries. 1872-1911. Chronol.)
- 3101 **IPPEN, JOSEPH ANTON**, 1855-
 SCHADLER, JOSEF. J. A. Ippen. Naturw. Ver. Steiermark, Mitth. 54, 1918: 5-6. (20 entries. 1892-1910. Chronol.)
- 3102 **IRVING, JOHN DUER**, 1874-1918.
 KEMP, J. F. Captain John Duer Irving. Am. Inst. Min. Eng., Trans. 61, 1920: 740-741. (32 entries. 1896-1918. Chronol.)
 KEMP, J. F. Memorial of John Duer Irving. Geol. Soc. Am., Bull. 30, 1918: 41-42. (33 entries. 1896-1918. Chronol.)
- 3103 **JACKSON, CHARLES THOMAS**, 1805-80.
 WOODWORTH, J. B. Charles Thomas Jackson. Am. Geol., 20, 1897: 87-110. (340 entries. 1828-87. Chronol.)
- 3104 **JACQUOT, [J.]**, 1817-1903.
 LÉVY, A. MICHEL. Nécrologie. M. Jacquot. France. Serv. carte géol., Bull. 91-t. 13 (1901-02): v-viii. (42 entries. 1841-94. Chronol.)
- 3105 **JAMES, JOSEPH FRANCIS**, 1857-97.
 GILBERT, G. K. Joseph Francis James. Am. Geol., 21, 1898: 4-11. (124 entries. 1879-95. Subj. Chronol.)
 STANTON, T. W. Memoir of Joseph Francis James. Geol. Soc. Am., Bull. 9, 1898: 410-412. (49 entries. 1881-95. Chronol.)
- 3106 **JANET, LÉON**, 1861-1909.
 DOLLFUS, G. F. Bibliographie des travaux de Léon Janet. Soc. géol. France, Bull. 4th ser. 10, 1910: 379. (27 entries. 1894-1909. Chronol.)
- 3107 **JANNETTAZ, ÉDOUARD, i. e. PIERRE MICHEL ÉDOUARD**, 1832-99.
 MICHEL, L. Ed. Jannettaz. Tra-vaux. Soc. franç. min., Bull. 23, 1900: 201-204. (66 entries. n. d. Subj.)
- 3108 **JEREMEJEW, P. W.**
 [List of publications.] In Russian. Russia. Com. géol., Bull. 18, 1899: 8-17. (119 entries. 1853-98. Chronol.)
- 3109 **JOHN, CONRAD VON**, 1852-1918:
 HACKL, O. Zur Erinnerung an Conrad v. John. Austria. Geol. Reichsanst., Verh. 1918. 180-184. (70 entries. 1874-1910. Chronol.)

- 3110 **JOHNSTON-LAVIS, HENRY JAMES**, 1856-1914.
*List of books, memoirs, articles, etc., of H. J. Johnston-Lavis. London, 1912.
- 3111 **JOHNSTRUP, JOHANNES FREDERIK**, 1818-94.
Fortegnelse over J. F. Johnstrup's udgivne geologiske og kemiske Arbejder. Dansk geol. foren., Meddel. 3, 1896: 6-12. (38 entries. 1846-92. Chronol.)
RØRDAM, K. Johannes Frederik Johnstrup. Hans Liv og Virksomhed. Dansk geol. foren., Meddel. 5, no. 15, 1918: 57-61. (58 entries. 1846-94. Chronol.)
- 3112 **JUDD, JOHN WESLEY**, 1840-1916.
Eminent living geologists: John Wesley Judd. Geol. Mag., n. s. (V) 2, 1905: 394-397. (95 entries. 1867-1904. Chronol.)
- 3113 **JULIEN, ALEXIS ANASTAY**, 1840-1919.
KEMP, J. F. Memorial of Alexis Anastay Julien. Geol. Soc. Am., Bull. 31, 1919: 84-88. (76 entries. 1865-1915. Chronol.)
- 3114 **KERNER, FRITZ**.
KERNER, FRITZ. Verzeichnis meiner ersten hundertundfünfzigerkundlichen Arbeiten. Austria: Geol. Reichsanst., Verh. 1919: 292-302. (152 entries. 1887-1919. Chronol.)
- 3115 **KEYES, CHARLES ROLLIN**, 1864-
KEYES, C. R. List of the scientific writings of . . . Baltimore, 1909, 23 pp. (415 entries. 1881-1909. Subj.)
- 3115a **KILIAN, WILFRID**, *i. e.* **CHARLES CONSTANT WILFRID**, 1862-
*Notice sur le travaux et les publications scientifiques . . . Lyon, 1915, 230 pp.
- 3116 **KING, CLARENCE**, 1845-1901.
EMMONS, S. F. Biographical memoir of Clarence King. 1845-1901. Nat. Acad. Sci., Biog. Mem. 6, 1909: 55. (21 entries. 1870-96. Chronol.)
EMMONS, S. F. Clarence King. Am. Journ. Sci., 4th ser. 13, 1902: 237. (16 entries. 1870-96. Chronol.)
EMMONS, S. F. Tributes to Clarence King. Eng. and Min. Journ., 73, 1902: 4-5. (6 entries. 1871-93. Chronol.)
RAYMOND, R. W. Biographical notice of Clarence King. Am. Inst. M. E., Trans. 33, 1903: 649-650. (19 entries. 1870-96. Chronol.)
- 3117 **KLEBS, RICHARD**, 1850-91.
TORNQVIST, A. Richard Klebs. Phys.-ökon. Gesell. Königsberg, Schr. 52, 1911: 37. (11 entries. 1880-1911. Chronol.)
- 3118 **KLEIN, CARL**, *i. e.* **JOHANN FRIEDRICH CARL**, 1842-1907.
WOLFF, F. v. Carl Klein. Centralb. f. Min., 1907: 654-661. (108 entries. 1869-1907. Chronol.)
- 3119 **KNIGHT, WILBUR CLINTON**, 1858-1903.
BARBOUR, E. H. Memoir of Wilbur Clinton Knight. Geol. Soc. Am., Bull. 15, 1904: 548-549. (51 entries. 1893-1903. Chronol.)
NELSON, AVEN. Wilbur Clinton Knight. Sci., n. s. 18, 1903: 408-409. (46 entries. 1893-1903. Chronol.)
WILLISTON, S. W. Wilbur Clinton Knight. Am. Geol., 33, 1904: 5-6. (43 entries. 1893-1903. Chronol.)
- 3120 **KOENEN, ADOLF VON**, 1837-1915.
MENZEL, HANS. Verzeichnis der Schriften A. v. Koenen's. Festschrift Adolf v. Koenen gewidmet . . . 1907: xxi-xxi. (185 entries. 1863-1907. Chronol.)
POMPECK, F. Gedenkrede auf Adolf von Koenen. Deutsch. geol. Gesell., Zeit. 67, 1915: Monatsb.: 254-268. (216 entries. 1863-1911. Subj.)
- 3121 **KOKEN, ERNST FRIEDRICH RUDOLPH KARL**, 1860-1912.
HUENE, F. v. Ernst Koken. N. J. f. Min., 1912-II: i-v. (85 entries. 1883-1912. Chronol.)
- 3122 **LACHMANN, RICHARD**, 1885-1916.
FRECH, F. Richard Lachmann. Centralb. f. Min., 1917: 71-72. (26 entries. 1908-14. Chronol.)
- 3123 **LACOE, RALPH DUPUY**, 1824-1901.
WHITE, DAVID. Memoir of Ralph Dupuy Lacoe. Geol. Soc. Am., Bull. 13, 1902: 515. (3 entries. 1881-84. None.)
- 3124 **LACROIX, ALFRED**, 1863-
*LACROIX, A. Notice sur les travaux scientifiques d'A. Lacroix. Paris. 1903.
- 3125 **LAFLAMME, JOSEPH CLOVIS KEMNER**, 1849-1910.
CLARKE, J. M. Memoir of J. C. K. Laflamme. Geol. Soc. Am., Bull. 22, 1910: 7-8. (20 entries. 1881-1907. Chronol.)

* Not seen.

- 3126 LAMBE, LAWRENCE MORRIS, 1863-1919.
KINDLE, E. M. Memorial of Lawrence M. Lambe. Geol. Soc. Am., Bull. 31, 1919: 92-97. (86 entries. 1892-1919. Subj. Chronol.)
- 3127 LAMPLUGH, GEORGE WILLIAM, 1859-
Eminent living geologists: George William Lamplugh. Geol. Mag., n. s. (VI) 5, 1918: 343-346. (80 entries. 1878-1917. Chronol.)
- 3128 LANGTON, DANIEL W., jr., 1864-1909.
SMITH, E. A. Memoir of Daniel W. Langton, jr. [1864-1909] Geol. Soc. Am., Bull. 21, 1910: 15-16. (7 entries. 1886-96. Chronol.)
- 3129 LAPWORTH, CHARLES, 1842-1920.
Eminent living geologists: Professor Charles Lapworth. Geol. Mag., n. s. (iv) 8, 1901: 302-303. (55 entries. 1870-99. Chronol.)
- 3130 LAUNAY, LOUIS DE, 1860-
*Notice sur les travaux scientifiques de M. Louis de Launay. Rennes, 1903-04. 31 + 14 pp.
*Supplement sur les travaux scientifiques de L. de Launay depuis 1906. Paris, 1912, 12 pp.
- LAVIS, HENRY JAMES JOHNSTON—See JOHNSTON-LAVIS, HENRY JAMES.
- 3131 LE CONTE, JOSEPH, 1823-1901.
CHRISTY, S. B. Biographical notice of Joseph Le Conte. Am. Inst. M. E., Trans. 31, 1902: 788-793. (213 entries 1850-1901. Chronol.)
FAIRCHILD, H. L. Memoir of Joseph Le Conte. Geol. Soc. Am., Bull. 26, 1914: 54-57. (60 entries. 1853-1900. Chronol.)
HILGARD, E. W. Biographical memoir of Joseph Le Conte, 1823-1901. Nat. Acad. Sci., Biog. Mem. 6, 1906: 212-218. (213 entries. 1850-1901. Chronol.)
LE CONTE, JOSEPH. The autobiography of Joseph Le Conte edited by William Dallam Ames. N. Y., 1903, 337 pp. (Papers, 266-290. 21 entries. 1877-1900. Footnotes.)
- 3132 LEIDY, JOSEPH, 1823-91.
OSBORN, H. F. Joseph Leidy, 1823-1891. Nat. Acad. Sci., Biog. Mem. 7, 1913: 370-394. (512 entries. 1845-1903. Chronol.)
- 3133 LEMBERG, JOHANNES, 1842-1902.
LOEWINSON-LESSING, F. Johannes Lemberg. Centralb. f. Min., 1902: 246-247. (21 entries. 1866-1900. Chronol.)
- 3134 LEPSIUS, RICHARD, i. e. KARL GEORG RICHARD, 1861-1915.
KLEMM, G. Zur Erinnerung an Richard Lepsius. Ver. f. Erdk. Darmstadt, Notizbl. 5, hft 1, 1916: 18-22. (67 entries. 1875-1914. Chronol.)
- 3135 LESLEY, J. PETER, 1819-1903.
AMES, M. L., ed. Life and letters of Peter and Susan Lesley edited by their daughter Mary Leslie Ames. 2 vols. N. Y. and London, 1909. (Bibl., vol. 2, App. F, 502-505. 66 entries. 1856-95. Chronol.)
STEVENSON, J. J. Memoir of J. Peter Lesley. Geol. Soc. Am. Bull. 15, 1904: 538-541. (66 entries. 1856-95. Chronol.)
- 3136 LÉVY, AUGUSTE MICHEL—, 1844-1911.
LACROIX, A. Liste bibliographique des travaux scientifiques de A. Michel-Lévy. Soc. franc. min., Bull. 37, 1914: 215-230. (176 entries. 1873-1911. Chronol.)
LACROIX, A. Notice historique sur Auguste Michel-Lévy. Paris (Institut), 1914, 52 pp. (Works, 40-52. 160 entries. 1873-1906. Subj.)
LAUNAY, L. DE. Auguste Michel-Lévy. Ann. mines, 11e ser. Mem. 5, 1914: 219-230. (164 entries. 1869-1911. Chronol.)
LEMOINE, PAUL. Auguste Michel-Lévy. Soc. sci. nat. Saône-et-Loire, Bull. 38, 1912: 34-36. (30 entries. 1872-99. Chronol.)
- 3137 LIBERT, JOSEPH, 1853-1919.
Publications de Joseph Libert. Soc. géol. Belg., Ann. 43, 1921: B265-B267. (47 entries. 1884-1919. Magazines. Chronol.)
- 3138 LINDSTROM, GUSTAF, 1829-1901.
HOLM, GERHARD. Gustaf Lindström. Minnesteckning. Geol. Fören. Stockh. Förh., 34, 1912: 41-44. (71 entries. 1852-99. Chronol.)
- 3139 LINNÉ, CARL VON, 1707-78.
NATHORST, A. G. Carl von Linné als geolog. Jena, 1909, 86 pp. (Publ., 80. 19 entries. 1732-59. Chronol.)
- 3140 LOCARD, ARNOULD, 1841-1904.
GERMAIN, LOUIS. Arnould Locard sa vie, des travaux. Soc. linn. Lyon, Ann. 1905: 202-211. (177 entries. 1877-1905. Chronol.)
- 3141 LOMAS, JOSEPH.
List of Scientific Papers. Liverpool Geol. Soc., Proc. 10, 1909:

* Not seen.

- 336-339. (74 entries. 1887-1908. Chronol.)
- 3142 LONGCHAMBON, MICHEL**, 1886-1916.
BERTRAND, LÉON. Liste des publications géologiques de M. Longchambon. Soc. géol. France, Bull. 4th ser. 19, 1919: 169-170. (12 entries. 1912-14. Chronol.)
- 3143 LORIOL, CHARLES LOUIS PERCEVAL DE**, 1828-1908.
CHOFFAT, PAUL. Notice nécrologique sur Perceval de Lorient. Portugal. Serv. géol., Comm. 7, 1907-09: xxv-xxvii. (15 entries. 1880-1905. Chronol.)
LAMBERT, J. Liste des publications scientifiques de P. de Lorient Le Fort. Soc. géol. France, Bull. 4th ser. 10, 1910: 387-391. (72 entries. 1858-1909. Chronol.)
*SARASIN, CHARLES. Perceval de Lorient, 1828-1908. Soc. Helv. Sc. Nat., Actes 92, 1909-II: 8-13.
- 3144 LOUGHRIDGE, ROBERT HILLS**, 1843-1917.
SMITH, E. A. Memorial of Robert Hills Loughridge. Geol. Soc. Am., Bull. 29, 1917: 53-55. (37 entries. 1874-1916. Chronol.)
- 3144a LUGEON, MAURICE**, 1870-
Notes et publications scientifiques de Maurice Lugeon... Lausanne, 1920, 19 pp. (186 entries. 1887-1921. Chronol.)
- 3145 MAAS, GÜNTHER HEINRICH JULIUS MAX**, 1871-1905.
MENZEL, H. Günther Maas. Prussia. Geol. Landesanst., Jahrb. 27, 1909: 705-706. (21 entries. 1895-1909. Chronol.)
- 3146 MC CALLEY, HENRY**, 1852-1904.
SMITH, E. A. Biographical sketch of... Am. Geol., 35, 1905: 200-201. (33 entries. 1878-1901. Chronol.)
SMITH, E. A. Memoir of Henry McCalley. Geol. Soc. Am., Bull. 16, 1905: 557-558. (32 entries. 1878-[1901]. Chronol.)
- 3147 MC COY, Sir FREDERICK**, 1828-99.
Obituary. Geol. Mag., n. s. (IV) 8, 1901: 285-287. (69 entries. 1838-81. Chronol.)
- 3148 MC GEE, WILLIAM JOHN**, 1853-1912.
KNOWLTON, F. H. Memoir of W J McGee. Geol. Soc. Am., Bull. 24, 1912: 24-29. (126 entries. 1878-1911. Chronol.)
- McGEE, E. R. Life of W J McGee. Farley, Iowa, 1915, 240 pp. (Bibl., 233-240. 111 entries. 1875-1911. None.)
- 3149 MC MAHON, CHARLES ALEXANDER**, 1830-1904.
Obituary. Geol. Mag., n. s. (V) 1, 1904: 239. (30 entries. 1877-1903. Chronol.)
- 3150 MARR, JOHN EDWARD**, 1857-
Eminent living geologists: John Edward Marr. Geol. Mag., n. s. (VI) 3, 1916: 292-295. (91 entries. 1876-1916. Chronol.)
- 3151 MARSH, OTHNIEL CHARLES**, 1831-99.
BEECHER, C. E. Memoir of Othniel Charles Marsh. Geol. Soc. Am., Bull. 11, 1900: 529-537. (220 entries. 1862-99. Chronol.)
BEECHER, C. E. Othniel Charles Marsh. Am. Geol., 24, 1899: 147-157. Am. Journ. Sci., 4th ser. 7, 1899: 420-428. (238 entries. 1861-99. Chronol.)
- 3152 MARTEL, ÉDOUARD ALFRED**, 1859-
*Notice sur les travaux scientifiques d'E. Martel. Paris, 1911, 102 pp.
- 3153 MASKELYNE, MERWIN HERBERT NEVIL STORY**, 1823-1911.
SAVIGAR, G., comp. Bibliography. List of publications by Professor N. Story-Maskelyne. Min. Mag., 16, 1911: 152-156. (84 entries. 1847-1907. Chronol.)
- 3154 MATHER, WILLIAM WILLIAMS**, 1804-59.
HITCHCOCK, C. H. Sketch of W. W. Mather. Am. Geol., 19, 1897: 9-15. (86 entries. 1828-59. Chronol.)
- 3155 MATHERON, PIERRE EMILE PHILIPPE**, 1807-99.
DEPÉRET, CH. Notice biographique sur Ph. Matheron. Soc. géol. France, Bull. 3d ser. 28, 1900: 523-525. (40 entries. 1832-91. Chronol.)
- 3156 MATTEUCCI, RAEFFAELE VITTORIO**, 1862-1909.
GALDIERI, AGOSTINO. Pubblicazioni di R. V. Matteucci. Soc. geol. ital. Boll. 30, 1911: lv-lviii. (42 entries. 1889-1906. Chronol.)
- 3157 MAYER-EYMAR, CARL DAVID WILHELM**, 1826-1907.
SACCO, FEDERICO. Carlo Mayer-Eymar, cenni biografici. Soc. geol. ital., Boll. 26, 1907: 595-602. (127 entries. 1853-1906. Chronol.)

*Not seen.

- 3158 MEEK, FIELDING BRADFORD, 1817-76.
WHITE, C. A. Biographical sketch of . . . Am. Geol., 18, 1896: 343-350. (105 entries. 1855-77. Chronol.)
WHITE, C. A. Memoir of Fielding Bradford Meek, 1817-76. Nat. Acad. Sci., Biog. Mem. 4, 1902: 80-91. (106 entries. 1855-76. Chronol.)
- 3159 MELL, PATRICK HUES. 1850-1918.
CALHOUN, F. H. H. Memorial of Patrick Hues Mell. Geol. Soc. Am., Bull. 30, 1918: 47. (15 entries. n. d. None.)
- 3160 MEUNIER, STANISLAS, 1843- .
*Notice, sur les travaux scientifiques de Stanislas Meunier. Paris, 1910, 176 pp.
- 3161 MEYER, CHARLES JOHN ADRIAN, 1832-1900.
List of papers. Geol. Mag., n. s. (IV) 8, 1901: 48. (17 entries. 1863-94. Chronol.)
- 3162 MICHALSKI, ALEXSANDRO.
[List of publications.] In Russian. Russia. Com. géol., Bull. 23, no. 10, 1904. (31 entries. 1883-1903. Chronol.)
MICHEL - LÉVY, AUGUSTE. See LÉVY, AUGUSTE MICHEL.
- 3163 MICHELL, JOHN, 1724?-93.
GEIKIE, Sir ARCHIBALD. Memoir of John Michell. Cambridge 1918, 108 pp. (Works, 24-105. 6 entries. 1760-83. Footnotes.)
- 3164 MIEG, MATHIEU, 1849-1911.
STEHLIN, H. G. Liste des travaux. . . . Soc. géol. France, Bull. 4th ser. 12, 1912: 365-368. (75 entries. 1877-1911. Chronol.)
- 3165 MILLER, HUGH, 1850-95.
HORNE, J. Obituary notice of Hugh Miller. Edinburgh Geol. Soc., Trans. 7, 1905: 137-138. (16 entries. 1880-96. Chronol.)
- 3166 MILLS, JAMES ELLISON, 1834-1901.
BRANNER, J. C. Memoir of James E. Mills. Geol. Soc. Am., Bull. 14, 1903: 516-517. (9 entries. 1871-1902. Chronol.)
- 3167 MILNE, JOHN, 1850-1913.
Eminent living geologists: Professor John Milne. Geol. Mag., n. s. (V) 9, 1912: 343-346. (113 entries. 1874-1912. Chronol.)
- 3168 MOBERG, JOHAN CHRISTIAN, 1854-1915.
GRÖNWALL, K. A. Joh. Christian Moberg. Minnesteckning. Geol. Fören. Stockh. Förhandl., 39, 1917: 483-488. (68 entries. 1881-1914. Chronol.)
- 3169 MÖLLER, VAL V.
[List of publications.] In Russian. Russia. Com. géol., Bull. 29, 1910: 4-11. (77 entries. 1862-1900. Chronol.)
- 3169a MÖSCH, CASIMIR, 1827-1898.
*BALTZER, A. Casimir Mösch, 1827-1898. Soc. Helv. Sc. Nat., Actas 82, 1889: xvii-xix.
- 3170 MOJSISOVICS, EDMUND, i. e. JOHANN AUGUST GEORG EDMUND Edler von MOJS-VÁR, 1839-
DIENER, C. Edmund v. Mojsisovics. Eine Skizze seines Lebensganges und seiner wissenschaftlichen Tätigkeit. Beitr. Palaont. Oesterr.-Ung., 20, 1907: 279-284. (148 entries. 1862-1905. Chronol.)
- 3171 MONTESSUS DE BALLORE, FERNAND, i. e. JEAN BAPTISTE FERNAND MARIE BERNARD, Conte DE, 1851-1923.
HAMMOND, C. B. Comte de Montessus de Ballore. Seis. Soc. Am., Bull. 2, 1912: 222-223. (14 entries. 1891-1911. Chronol.)
List des travaux séismologiques de l'auteur. In his La science séismologique. Paris, 1907: 571-573. (62 entries. 1884-1906. Chronol.)
- 3172 MORTILLET, GABRIEL DE.
MORTILLET, PAUL. Liste des publications de Gabriel de Mortillet. Soc. anthro. Paris, Bull. 2, 1901: 439-464. (ca 400 entries. 1845-98. Chronol.)
- 3172a MOSES, ALFRED JOSEPH. 1859-1920.
LUQUER, L. McI. Alfred J. Moses. Am. Min., 5, 1920: 110-112. (36 entries. n. d.)
- 3173 MUDGE, BENJAMIN FRANKLIN, 1817-79.
WILLISTON, S. W. Prof. Benjamin F. Mudge. Am. Geol., 23, 1899: 344-345. (29 entries. 1866-80. Chronol.)
- 3174 MÜHLBERG, FRITZ, 1840-1915.
MÜHLBERG, MAX. Dr. Fritz Mühlberg. 1840-1915. Aarg. naturf. Gesell., Mitth. 14, 1917: 34-45. Schw. naturf. Gesell., Verh. 97, 1915: 145-156. (149 entries. 1863-1915. Subj.)
- 3175 MÜLLER, KARL CHRISTIAN GOTTFRIED LUDWIG, 1862-1906.
KRUSCH, P. Gottfried Müller.

*Not seen.

- Prussia. Geol. Landesanst., Jahrb. 27, 1909: 690-692. (44 entries. 1888-1904. Chronol.)
- 3176 **MÜLLER, KARL HERMANN**, 1823-1907.
BECK, RICHARD. Hermann Müller. Zeit. f. prak. Geol., 1907: 173-174. (47 entries. 1849-1901. Chronol.)
Verzeichnis der Veröffentlichungen H. Müllers. Jahrb. f. Berg-u. Hüttenw. Sachsen, 1907: 14-16. (47 entries. 1849-1901. Chronol.)
- 3177 **MEUNIER-CHALMAS, E.**
*Notice sur les travaux scientifiques. Paris, 1903. 120 pp.
- 3178 **MURRAY, Sir JOHN**, 1841-1914.
KERR, J. G. Sir John Murray. Roy. Soc. Edinb., Proc. 35, 1914-15: 313-317. (64 entries. 1876-1912. Chronol.)
MURRAY, REGINALD AUGUSTUS FREDERICK, 1846-. See 3242.
- 3179 **MUSCHKETOW, IWAN WASSILJEWITSCH**, 1850-1902.
Iwan Wassilkewitsch Muschketow. Centralb. f. Min., 1902: 210-211. (45 entries. 1872-99. Chronol.)
*Lists bibliographique des oeuvres de. Gornyi zhurnal, 1902-1: 324-329.
- 3180 **NATHORST, ALFRED GABRIEL**, 1850-
Fürteckning på skrifter av Alfred Gabriel Nathorst. 1869-1920. Geol. Fören. Stockh. Förh., 43, 1921: 281-311. (377 entries. 1869-1920. Chronol.)
- 3181 **NEVIANI, ANTONIO**, 1857-
Pubblicazioni (1883-1905). Roma, 1905, pp. 1-14. (112 entries. 1883-1905. Chronol.)
- 3182 **NEWBERRY, JOHN STRONG**, 1822-92.
WHITE, C. A. Biographical memoir of John Strong Newberry, 1822-92. Nat. Acad. Sci., Biog. Mem. 6, 1906: 15-24. (212 entries. 1851-91. Chronol.)
NEWBERRY, JAMES COSMO, 1843-1895. See 3242.
- 3183 **NICCOLI, ENRICO**, 1836-1915.
DOMPÈ, LUIGI. Pubblicazioni di Enrico Niccoli. Soc. geol. ital., Boll. 34, 1915: lxii. (16 entries. 1877-1906. Chronol.)
- 3184 **NICOLIS, ENRICO DE**, 1841-1908.
PARONA, C. F. Pubblicazioni di Enrico de Nicolis. Soc. geol. ital., Boll. 28, 1909: cxxxvii-exl. (51 entries. 1877-1909. Chronol.)
- 3185 **NIETHAMMER, GOTTLÖB AUGUST**, 1882-1915.
SCHMIDT, C. Worte der Erinnerung an Dr. Gottlob Niethammer, Dr. Fortunat Zyndel und Dr. Andreas Gutzwiller. Naturf. Gesell. Basel, Verh. 29, 1918: 119.
- 3186 **NIKITIN, SERGIJ**.
[List of publications]. In Russian. Russia. Com. géol., Bull. 28, 1909: 35-51. (188 entries. 1877-1909. Chronol.)
- 3187 **NILES, WILLIAM HARMAN**, 1838-1910.
BARTON, G. H. Bibliography of W. H. Niles. Geol. Soc. Am., Bull. 23, 1912: 34-35. (12 entries. 1865-78. Chronol.)
- 3187a **NÜESCH, JAKOB**, 1845-1915.
*STUDER, TH. Dr. Jakob Nüesch, 1845-1915. Schw. naturf. Gesell., Verh. 98, 1916, 1: 45-47.
- 3188 **OMBONI, GIOVANNI**, 1829-1910.
DAL PIAZ, G. Pubblicazioni del Prof. G. Omboni. Soc. geol. ital., Boll. 29, 1910: ci-cvi. (68 entries. 1851-1901. Chronol.)
- 3189 **ORTON, EDWARD**, 1829-99.
ALLEN, LUCY, comp. Bibliography. Am. Geol., 25, 1900: 204-210. 116 entries. 1869-99. Chronol.)
- 3190 **OSBORN, HENRY FAIRFIELD**, 1857-
OSBORN, H. F. Scientific publications of . . . 1878-1899. N. Y. Acad. Sci., Ann. 13, 1900: 65-72. (125 entries. 1878-99. Chronol.)
RIPLEY, H. E., comp. Bibliography of the published writings of Henry Fairfield Osborn for the years 1877-1915. 2d ed. n. p. p. 1916, 74 pp. (514 entries. 1877-1920. Chronol. Supplements issued for the years 1916-20.)
- 3190a **PARANDIER, A. N.**, 1804-1901.
*GIRARDOT, ALBERT. M. Parandier . . . sa vie et ses oeuvres. Acad. Sc. Belles-Lettres et Arts de Besançon. 1902: 88-100.
- 3191 **PAUL, CARL MARIA**, 1838-1900.
TIETZE, E. Zur Erinnerung an Carl Maria Paul. Austria. Geol. Reichsanst., Jahrb. 50, 1900: 549-558. (156 entries. 1859-99. Chronol.)
- 3192 **PEETZ, HERMANN VON**, 1867-1909?
LEHMANN, VLAD. Notice nécrologique su Herman de Peetz. Text in Russian. Russia Cab. S. M., Sec. géol., Trav. 8, 1915: 190-191. (16 entries. 1890-1909. Chronol.)

* Not seen.

- 3193 **PENFIELD, SAMUEL LEWIS**, 1856-1906.
IDDINGS, J. P. Memoir of Samuel Lewis Penfield. Geol. Soc. Am., Bull. 18, 1907: 578-582. (115 entries. 1877-1907. Chronol.)
PIRSSON, L. V. Samuel Lewis Penfield. Am. Journ. Sci., 4th ser. 22, 1906: 364-367. (108 entries. 1877-1906. Chronol.)
WELLS, H. L. Biographical memoir of Samuel Lewis Penfield, 1856-1906. Nat. Acad. Sci., Biog. Mem. 6, 1907: 141-146. (116 entries. 1877-1907. Chronol.)
- 3194 **PENGELLY, WILLIAM**, 1812-94.
PENGELLY, HESTER, *ed.* A memoir of William Pengelly, of Torquay F. R. S., geologist, with a selection from his correspondence. . . . London, 1897, 341 pp. (List, 323-329. 119 entries. 1849-97. Chronol.)
- 3195 **PENHALLOW, DAVID PEARCE**, 1854-1910.
BARLOW, A. E. Memoir of David Pearce Penhallow. Geol. Soc. Am., Bull. 22, 1910: 18-19. (24 entries. 1890-1908. Chronol.)
- 3196 **PETTEE, WILLIAM HENRY**, 1836-1904.
RUSSELL, I. C. Biographical notice of William Henry Pettee. Am. Geol., 35, 1905: 3-4. Geol. Soc. Am., Bull. 16, 1905: 560. (2 entries. 1874-80. Chronol.)
- 3197 **PIETTE, LOUIS EDOUARD STANISLAS**, 1827-1906.
DOUXAMI, H. Edouard Piette. Soc. géol. Nord, Ann. 37, 1908: 23-25. (22 entries. 1855-1906. Chronol.)
- 3198 **PLATT, FRANKLIN**, 1844-1900.
FRAZER, PERSIFOR. Memoir of Franklin Platt. Geol. Soc. Am., Bull. 12, 1901: 455. (10 entries. 1875-85. Chronol.)
- 3199 **POMEL, AUGUSTE**, 1821-98.
FICHEUR, E. Bibliographie des travaux scientifiques de A. Pomel. Soc. géol. France, Bull. 3d ser. 27, 1899: 217-223. (137 entries. 1854-98. Subj. Chronol.)
- 3200 **POST, HAMPUS ADOLF VON**, 1822-1905?
SERNANDER, RUTGER. Förteckning öfver Hampus von Posts utgifna skrifter. Geol. Fören. Stockh. Förh., 34, 1912: 174-177. (80 entries. 1842-96. Chronol.)
- 3201 **POTIER, ALFRED**. 1840-1905.
LIÉNARD, A. Alfred Potier, sa vie, ses travaux. Ann. Mines, 10e ser. Mem. 13, 1908: 206-210. (78 entries. 1867-1902. Chronol.)
- 3202 **POTONIÉ, HENRY**, 1857-1913.
KAUNHOWEN, F. Zum Gedächtnis Henry Potoniés. Deutsch. geol. Gesell., Zeit. 66, 1914, Monatsb. 395-406. (220 entries. 1880-1913. Chronol.)
- POUSSIN, CHARLES LOUIS JOSEPH XAVIER DE LA VALLEÉ**.
See VALLÉE POUISSIN, CHARLES LOUIS JOSEPH XAVIER DE LA.
- 3203 **POWELL, JOHN WESLEY**, 1834-1902.
WARMAN, P. C. Catalogue of the published writings of John Wesley Powell. Wash. Acad. Sci., Proc. 5, 1903: 131-187. (251 entries. 1867-1902. Subj.)
- 3204 **PRESTWICH, Sir JOSEPH**, 1812-96.
[PRESTWICH, G. A. M.] Life and letters of Sir Joseph Prestwich. Written and edited by his wife. Edinburgh and London, 1899, 444 pp. (List, 422-432. 140 entries. 1834-98. Chronol.)
- 3205 **PRICE, FREDERICK GEORGE HILTON**, 1842-1909.
[WOODWARD], H. B. Obituary. Geol. Mag., n. s. (V) 6, 1909: 240. (12 entries. 1872-93. Chronol.)
- 3206 **PROSSER, CHARLES SMITH**, 1860-1916.
CUMINGS, E. R. Memorial of Charles Smith Prosser. Geol. Soc. Am., Bull. 28, 1916: 76-80. (81 entries. 1887-1916. Chronol.)
- 3207 **PURDUE, ALBERT HOMER**, 1861-1917.
ASHLEY, G. H. Memorial of Albert Homer Purdue. Geol. Soc. Am., Bull. 29, 1917: 60-64. (93 entries. 1895-1918. Chronol.)
- 3208 **RAIMONDI, ANTONIO**, 1826-90.
BALTA, J. Labor de Raimondi. *In* Raimondi, A. El Peru. vol. 4, 1902: xxvii-xxxvii. (113 entries. 1853-99. Chronol.)
- 3209 **RAMMELSBERG, KARL FRIEDRICH**, 1813-99.
BAUER, MAX. Karl Friedrich Rammelsberg. Centralb. f. Min., 1900: 342-357. (308 entries. 1837-97. Chronol.)
WYROUBOFF, G. K. F. Rammelsberg. Liste des travaux. Soc. franç. min., 24, 1901: 283-306. (419 entries. 1836-97. Chronol.)
- 3210 **RAULIN, FELIX VICTOR**, 1815-1905.
DOUVILLÉ, HENRI. Victor Raulin Notice nécrologique. Soc. géol.

- France, Bull. 4th ser. 6, 1906: 335-339. (106 entries. 1837-1904. Chronol.)
- 3211 READE, THOMAS MELLARD,** 1832-1909.
 *Second list of scientific papers and works, 1891-1904. Nos. 113-82. London, 1905.
 Obituary. Geol. Mag., n. s. (V) 6, 1909: 336. (nos. 183-196. 1905-09. Chronol. A third list of scientific papers.)
- 3212 REINACH, ALBERT VON,** 1842-1905.
 KINKELIN, F. Zum Andenken an Dr. phil. Albert von Reinach. Senckenb. naturf. Gesell., Ber. 1905-I: 73-74. (22 entries. 1887-1904. Chronol.)
 LEPPLA, A. Albert von Reinach. Prussia. Geol. Landesanst., Jahrb. 26, 1908: 674-675. 21 entries. 1887-1906. Chronol.)
- 3213 REMELÉ, ADOLF KARL.**
 KRAUSE, P. G. Zum Gedächtnis von Adolf Karl Remelé. Deutsch. geol. Gesell., Zeit. 68, 1916: Monatsb. 98-101. (65 entries. 1864-1910. Chronol.)
- 3213a RENEVIER, EUGÈNE,** 1831-1906.
 *LUGEON, MAURICE. Eugène Renévier. Schw. naturf. Gesell., Verh. 89, 1906: xcviii-cv.
- 3214 RÉVIL, JOSEPH,** 1849- .
 Liste des publications géologiques de M. Joseph Révil. Grenoble, Univ. Lab. géol., Trav. 10, fasc. 2. 1912-13: 184-189. (73 entries. 1880-1913. Chronol.)
- 3215 REYER, EDOUARD,** 1849-1914.
 HAMMER, W. Zur Erinnerung an Eduard Reyer. Austria. Geol. Reichsanst., Verh. 1915: 104-105. (52 entries. 1877-1909. Chronol.)
- RIBEIRO, CARLOS,** 1813-82. *See* 3023.
- 3216 RICHTHOFEN, FERDINAND PAUL WILHELM,** *Freiherr* VON, 1833-1905.
 TIESSEN, ERNST. Die schriften von Ferd. freiherr v. Richthofen. Leipzig, 1906, 18 pp. "Manner der wissenschaft," hft. 4. (207 entries. 1856-1905. Chronol.)
- 3217 RIVA, CARLO,** 1872-1902.
 SALOMON, WILHELM. Carlo Riva. Centralb. f. Min., 1902: 674-675. (19 entries. 1892-1901. Chronol.)
- 3218 ROEMER, FERDINAND VON,** 1818-91.
 SIMONDS, F. W. Publications of Dr. von Roemer upon subjects relating to North America. Am. Geol., 29, 1902: 138-140. (29 entries. 1846-1902. Chronol.)
- 3219 ROGERS, GAILLARD SHERBURNÉ,** 1889-1919.
 KEMP, J. F. Memorial of Gaillard Sherburne Rogers. Geol. Soc. Am., Bull. 31, 1919: 99-100. (22 entries. 1910-20. Chronol.)
- 3220 ROGERS, HENRY DARWIN,** 1808-66.
 GREGORY, J. W. Henry Darwin Rogers . . . an address to the Glasgow University geological society 20th January, 1916. With bibliography by Colin M. Leitch. Glasgow Univ. Geol. Dept., Papers 3, no. 1, 1916: 34-38. (68 entries. 1834-68. Chronol.)
- 3221 ROMINGER, CARL LUDWIG,** 1820-1907.
 MERRILL, G. P. Carl Ludwig Rominger. Smith. Misc. Coll., 52 (Vol. 5, pt. 1) 1908: 82. (17 entries. 1845-95. Chronol.)
- 3222 ROSENBUSCH, HARRY, i. e. KARL HARRY FERDINAND,** 1836-1914.
 MILCH, L. Zu Harry Rosenbusch Gedächtnis. Deutsch. geol. Gesell., Zeit. 66, 1914: Monatsb. 159-161. (42 entries. 1870-1910. Chronol.)
 SCHALCH, FERDINAND. Geheime Rat Prof. Dr. H. Rosenbusch, Begründer und Direktor der Gross. Bad. geologischen Landesanstalt 1888-1907. Baden. Geol. Landesanst., Mitth. 7, 1914: xviii-xix. (15 entries. 1869-1907. Chronol.)
 WÜLFING, E. A. Verzeichnis der Veröffentlichungen von H. Rosenbusch in chronologischer Reihenfolge. Centralb. f. Min., 1914: 295-299. (52 entries. 1869-1910. Chronol.)
- 3223 ROTHPLETZ, AUGUST, i. e., FRIEDRICH AUGUST,** 1853-1918.
 BROILL, F. August Rothpletz zum Gedächtnis. N. J. f. Min., 1919: liv-lviii. (93 entries. 1878-1917. Chronol.)
 POMPECKJ, J. F. Nachruf auf August Rothpletz. Deutsch. geol. Gesell., Zeit. 70, 1918, Monatsb. 16-34. (51 entries. 1876-1915. Footnotes.)

*Not seen.

- 3224 **ROUVILLE, PAUL GERVAIS DE**, 1823-1907.
 DELAGE, A. Notice nécrologique sur Paul Gervais de Rouville. Soc. géol. de France, Bull. 4e ser. 8, 1908: 219-222. (101 entries. 1853-1901. Chronol.)
- 3225 **RUSSELL, ISRAEL COOK**, 1852-1906.
 WILLIS, BAILEY. Memoir of Israel C. Russell. Geol. Soc. Am., Bull. 18, 1907: 586-592. (121 entries. 1876-1907. Chronol.)
- 3226 **RUTLEY, FRANK**, 1842-1904.
 Obituary. Geol. Mag., n. s. (V) 1, 1904: 334-335. (45 entries. 1865-1902. Chronol.)
- 3227 **SAFFORD, JAMES MERRILL**, 1822-1907.
 MCGILL, J. T. James M. Safford. Tenn. Acad. Sci., Trans. 2, 1917: 52-54. (34 entries. 1851-1904. Chronol.)
 STEVENSON, J. J. Memoir of James Merrill Safford. Geol. Soc. Am., Bull. 19, 1908: 524-527. (52 entries. 1851-1901. Chronol.)
- 3228 **SALMOJRAGHI, FRANCESCO**, 1837-1910.
 ALESSANDRI, G. DE. Pubblicazioni di Francesco Salmojrighi. Soc. geol. ital., Boll. 29, 1910: cxix-cxxii. (41 entries. 1872-1910. Chronol.)
- 3229 **SAPORTA, GASTON, i. e., LOUIS CHARLES JOSEPH GASTON DE**, 1823-95.
 ZEILLER, R. Le Marquis G. de Saporta, sa vie et ses travaux. Soc. géol. France, Bull. 3d ser. 24, 1896: 219-232. (218 entries. 1856-95. Chronol.)
- 3230 **SARASIN, ÉDOUARD**, 1843-1917.
 DE LA RIVE, L. Notice sur la vie et les travaux d'Edouard Sarasin. Arch. sci. phys. nat., 4th ser. 44, 1917: 340-344. (66 entries. 1869-1916. Chronol.)
- 3231 **SAUSSURE, HORACE BÉNÉDICT DE**, 1740-99.
 FRESHFIELD, D. W. The life of Horace Bénédict de Saussure. London, 1920, 479 pp. (Works, [467]-468. 24 entries. 1758-97. Chronol.)
- 3232 **SCARABELLI, GIUSEPPE**, 1820-1905.
 TOLDO, G. Giuseppe Scarabelli Gommi Flamini. Soc. geol. ital., Boll. 25, 1906: xxvi-xxviii. (40 entries. 1844-1900. Chronol.)
- 3232a **SCHALCH, FERDINAND**, 1848 1918.
 *PEYER, B. Ferdinand Schalch, 1848-1918. Atti. Soc. Elv. Sc. Nat. 100° Congresso, Lugano, 1919: 28-30.
- 3233 **SCHLUMBERGER, CHARLES**, 1825-1905.
 DOUVILLE, HENRI. Charles Schlumberger. Notice nécrologique. Soc. géol. France, Bull. 4th ser. 6, 1906: 348-350. (57 entries. 1862-1905. Chronol.)
- 3234 **SCHMIDT, FR.**
 [List of publications]. In Russian. Russia Com. géol., Bull. 27, 1909: 19-38. (225 entries. 1852-1908. Chronol.)
- 3235 **SCHOLZ, ERICH**, 1884-1914.
 KOERT, W. Erich Scholz. Deutsch. geol. Gesell., Zeit. 67, 1915, Montasb.: 9 (7 entries. 1908-14. Chronol.)
- 3236 **SCHRAUF, ALBRECHT**, 1837-97.
 WYROUBOFF, G. Notice sur A. Schrauf. Soc. franç. min., Bull. 21, 1898: 259-264. (113 entries. 1859-94. Chronol.)
- 3237 **SCHROEDER VAN DER KOLK, JACOBUS LIDEWIJK CONRADUS**, 1865-1915.
 *GRUTTERINK, J. A. [Publications of] Dr. J. L. Schroeder van der Kolk. (Dutch) Chem. Weekbl., Amsterdam, 2, 1905: 610-612.
- 3238 **SCHUBERT, RICHARD JOHANN**, 1876-1915.
 AMPFERER, OTTO. Zur Erinnerung an Richard Johann Schubert. Austria. Geol. Reichsanst., Jahrb. 65, 1915: 271-276. (112 entries. 1898-1915. Chronol.)
- 3239 **SEELEY, HARRY GOVIER**, 1839-
 Eminent living geologists: Professor H. G. Seeley. Geol. Mag., n. s. (V) 4, 1907: 245-253. (176 entries. 1858-1905. Chronol.)
- 3240 **SEELY, HENRY MARTYN**, 1828-1917.
 PERKINS, G. H. Memorial of Henry Martyn Seely. Geol. Soc. Am., Bull. 29, 1918: 68-69. (35 entries. 1861-1913. Chronol.)
- 3241 **SEGUENZA, LUIGI**, 1873-1908?
 CHECCHI-RISPOLI, G. Elenco delle pubblicazioni di Luigi Seguenza. Soc. geol. ital., Bull. 28, 1909: clxv-clxvi. (19 entries. 1900-08. Chronol.)
- 3242 **SELWYN, ALFRED RICHARD CECIL**, 1814-1902.
 AMI, H. M. Memorial or sketch of the life of the late Dr. A. R. C.

*Not seen.

- Selwyn. . . . Roy. Soc. Canada, Proc. and Trans. 2d ser. 10-IV, 1904: 191-205. (160 entries. 1848-64. Chronol.)
- AMI, H. M. Sketch of the life and work of. . . . Am. Geol., 31, 1903: 16-21. (58 entries. 1861-95. Chronol.)
- DUNN, E. J. Biographical sketch of the founders of the Geological Survey of Victoria . . . and bibliography by D. J. Mahony. Vict. Geol. Surv., Bull. 23, 1910:
1. Selwyn, A. R. C. Bibl.: 10-17. 89 entries. 1853-1873. Chronol.
 2. Daintree, Richard. Bibl., 10-17. 89 entries. 1860-1878. Chronol.
 3. Aplin, C. D. H. Bibl., 21-22. 28 entries. 1856-1868. Chronol.
 4. Taylor, Norman. Bibl., 23-25. 37 entries. 1862-1889. Chronol.
 5. Ulrich, G. H. F. Bibl., 27-29. 36 entries. 1859-1879. Chronol.
 6. Wilkinson, C. S. Bibl., 31. 16 entries. 1864-1868. Chronol.
 7. Murray, R. A. F. Bibl., 33-42. 192 entries. 1868-1899. Chronol.
 8. Brown, H. Y. L. Bibl., 43. 7 entries. 1865-1873. Chronol.
 9. Etheridge, Robt., jr. Bibl., 44-45. 10 entries. 1869-1881. Chronol.
 10. Newbery, J. C. Bibl., 47-48. 22 entries. 1865-1893. Chronol.
- These bibliographies include references to only those works resulting from work on the Victoria Geological Survey.
- 3243 SHALER, NATHANIEL SOUTHGATE, 1841-1906.**
SHALER, N. S. The autobiography of Nathaniel Southgate Shaler with a supplementary memoir by his wife. Boston and N. Y., 1909, 481 pp. Publ., 447-457. 234 entries. Chronol.)
- WOLFF, J. E. Memoir of Nathaniel Southgate Shaler. Geol. Soc. Am., Bull. 18, 1907: 599-609. (202 entries. 1861-1905. Chronol.)
- 3244 SHERBORN, CHARLES DAVIES, 1861-**
*SHERBORN, C. D. A list of contributions to various subjects by. London, 1906, pp. 1-9.
- 3245 SILLIMAN, BENJAMIN, 1816-85.**
WRIGHT, A. W. Benjamin Silliman, 1816-85. Nat. Acad. Sci., Biog. Mem. 7, 1911: 133-141. (87 entries. 1741-85. Chronol.)
- 3245a SIMPSON, MARTIN, 1800-92.**
SHEPPARD, T. Martin Simpson and his geological memoirs. Yorks. Geol. Soc., Proc. n. s. 19, pt. 4, 1918: 298-315. (25 entries. 1843-91. Chronol.)
- 3245b SIMPSON, WILLIAM, 1859-1915.**
BRANSON, F. W. In memoriam. William Simpson, F. G. S. (1859-1915). Yorks. Geol. Soc., Proc. n. s. 19, pt. 4, 1918: 325-326. (16 entries. 1894-1911. None.)
- 3246 SMEYSTERS, JOSEPH, 1837-190 ?**
LIBERT, JOSEPH. Joseph Smeysters, sa vie, son oeuvre. Soc. géol. Belg., Ann. 36, 1908-09: B347-B352. (69 entries. 1868-1905. Chronol.)
- 3247 SMITH, WILLIAM, 1789-1839.**
SHEPPARD, THOMAS. William Smith: his maps and memoirs. Hull, 1920, 253 pp. (Bibl., 247-254. 102 entries. 1595-1915. Chronol.)
- 3248 SOKOLOV, NIKOLAUS ALEXEJEVICH, 1856-1906?**
[List of publications]. In Russian. Russia Com. géol., Bull. 26, 1907: 16-23. (79 entries. 1880-1906. Chronol.)
- 3249 SORBY, HENRY CLIFTON, 1826-1908.**
*Biography of, and list of papers and monographs. Naturalist, 1906: 137-144, 194-230.
JUDD, J. W. Henry Clifton Sorby, and the birth of microscopical petrology. Geol. Mag., n. s. (V) 5, 1908: 193-204. (25 entries. 1856-1907. Footnotes.)
- 3250 SOUZA - BRANDÃO, VICENTE DE, 1863-1916.**
Bibliographia de Vicente Souza-Brandão. Portugal. Serv. geol., Comm. 8, 1910-11: 178-180. (18 entries. 1893-1908. Chronol.)
See 3023.
- 3251 SPIREK, VINCENZO, 1852-1907.**
ANGELIS D'OSSAT, G. DE. Pubblicazioni dell'Ing. Vincenzo Spirek. Soc. geol. ital., Boll. 27-1908: cxxiv-cxxvi. (22 entries. 1897-1906. Chronol.)
- 3252 SPITZ, ALBRECHT, 1883-1918.**
AMPFERER, OTTO. Zur Erinnerung an Albrecht Spitz. Austria. Geol. Reichsanst., Jahrb. 68, 1918: 169-170. (24 entries. 1907-17. Chronol.)

* Not seen.

- DYHRENFURTH, GÜNTER, Albrecht Spitz. Beitr. geol. Karte Schweiz, Beil. 44 (n. f.) 1919?: 7-8. (30 entries. 1907-19. Chronol.)
- 3253 STAFF, HANS VON, 1883-1915.
HENNIG, E. Hans von Staff. Centralb. f. Min., 1915: 694-695. (29 entries. 1905-14. Chronol.)
- 3254 STAPFF, FRIEDRICH MORITZ, 1836-95.
STAPFF, F. M. Zeit. f. prak. Geol., 1896: 85-88. (98 entries. 1858-95. Chronol.)
- 3255 STEARNS, ROBERT EDWARDS CARTER, 1827-1909.
STEARNS, M. R. Bibliography of the scientific writings of R. E. C. Stearns. Smith. Misc. Coll., 56, 1911: 3-15. (156 entries. 1859-1907. Subj.)
- 3256 STEENSTRUP, KNUD JOHANNES VOGELIUS, 1842-1913.
BØGGILD, O. B. Knud Johannes Vogelius Steenstrup. Dansk geol. foren., Meddel. 4, 1912-15: 211-214. (51 entries. 1872-1913. Chronol.)
- 3257 STEFANESCU, GREGORIU, 1838-1911.
POPESCU-VOITE TI, I. Gregoriu Ștefanescu și activitatea sa științifică. Rumania. Inst. geol., An. 5, 1911: xvi-xx. (120 entries. 1863-1910. Chronol.)
- STORY-MASKELYNE, MERWIN HERBERT NEVIL. See MASKELYNE, MERWIN HERBERT NEVIL STORY.
- 3258 STRAHAN, AUBREY, 1852-
Eminent living geologists. Aubrey Strahan. Geol. Mag., n. s. (VI) 2, 1915: 196-198. (67 entries. 1879-1915. Chronol.)
- STRANGWAYS, CHARLES EDWARD FOX- See FOX-STRANGWAYS. CHARLES EDWARD.
- 3259 STRÜBIN, KARL, 1876-1916.
BUXTORF, AUG. Dr. Karl Strübin 1876-1916. Schw. naturf. Gesell., Verh. 98-1916: 24-27. (31 entries. 1900-16. Chronol.)
- 3260 STRUEVER, GIOVANNI, 1842-1915.
ROSATI, ARISTIDE. Elenco delle pubblicazioni. Soc. geol. ital., Bol. 34, 1915: li-liv. (56 entries. 1864-1901. Chronol.)
- ROSATI, ARISTIDE. Verzeichnis der Veröffentlichungen von G. Strüver in chronologischer Reihenfolge. Centralb. f. Min., 1915: 328-330. (56 entries. 1864-1901. Chronol.)
- ZAMBONINI, F. Giovanni Strüver. Italy. Com. geol., Boll. 44, 1913-1914: 347-349. (46 entries. 1864-1901. Chronol.)
- 3261 SWALLOW, GEORGE CLINTON, 1817-99.
BROADHEAD, G. C. Biographical sketch of George Clinton Swallow. Am. Geol., 24, 1899: 4-5. (20 entries. 1853-92? Chronol.)
- 3262 TARR, RALPH STOCKMAN, 1864-1912.
MARTIN, LAWRENCE. Ralph Stockman Tarr. Zeit. f. Gletscherk., 9, 1915: 142-144. (57 entries. 1892-1914. Chronol.)
- WOODWORTH, J. B. Memoir of Ralph Stockman Tarr. Geol. Soc. Am., Bull. 24, 1912: 40-43. (90 entries. 1890-1912. Chronol.)
- 3263 TATE, RALPH, 1840-1901.
B[LAKE], J. F. Obituary. Geol. Mag., n. s. (IV) 9, 1902: 89-95. (162 entries. 1863-1900. Chronol.)
- 3264 TAUSCH VON GLÖCKELSTHURN, LEOPOLD, 1858-99.
DREGER, JULIUS. Zur Erinnerung an Dr. Leopold Tausch von Glöckelsthurn. Austria. Geol. Reichsanst., Jahrb. 48, 1898: 722-724. (45 entries. 1883-98. Chronol.)
- TAYLOR, NORMAN, 1834-1894.
See 3242.
- 3265 TEALL, Sir JETHRO JUSTINIAN HARRIS, 1849-
Eminent living geologists; Jethro Justinian Harris Teall. Geol. Mag., n. s. (V) 6, 1909: 5-8. (80 entries. 1875-1907. Chronol.)
- 3266 TELLER, FRIEDRICH, 1852-1913.
GEYER, GEORG. Zur Erinnerung an Friedrich Teller. Austria. Geol. Reichsanst., Jahrb. 63, 1913: 202-206. (72 entries. 1876-1910. Chronol.)
- 3267 TENORE, GAETANO, 1826-1903.
BASSANI, FRANCESCO. Pubblicazioni del Prof. Ing. Gaetano Tenore. Soc. geol. ital., Boll. 23, 1904: clxxxi-clxxxiv. (40 entries. 1844-1901. Chronol.)
- 3268 TENORE, MICHELE.
MELI, ROMOLO. I primi abbozzi di carta geologica del Napolitano pubblicata da Michele Tenore nel 1827. Soc. geog. ital., Boll. 5th ser. 6, pt. 2, 1917: 773-790. (19 entries. 1827-58. Chronol. pp. 778-783 contain chronological list of authors of geological maps of Italy exclu-

- sive of Sicily and the volcanic islands. . . . 1832-70.)
- 3269 TERMIER, PIERRE.**
 *Notice sur les travaux scientifiques de M. Pierre Termier. Paris. 1903. 44 pp.
 *Supplément à la notice sur les travaux scientifiques et résumé général de ces travaux. Paris, 1908, 36 pp.
- 3270 THEVENIN, ARMAND, 1870-1918.**
 GENTIL, LOUIS. Liste des publications d'Armand Thevenin. Soc. géol. France, Bull. 4th ser. 19, 1919: 145-147. (48 entries. 1895-1910. Subj. Chronol.)
- 3271 THOMPSON, ZADOCK, 1796-1856.**
 PERKINS, G. H. Sketch of the life of Zadock Thompson. Am. Geol., 29, 1902: 70-71. (21 entries. 1820-58. Chronol.)
- 3272 TIGHT, WILLIAM GEORGE, 1865-1910.**
 BOWNOCKER, J. A. Memoir of William George Tight. Geol. Soc. Am., Bull. 22, 1910: 21-22. (15 entries. 1890-1907. Chronol.)
- 3273 TOMES, ROBERT FISHER, 1823-1904.**
 RICHARDSON, L. Obituary. Geol. Mag., n. s. (V) 1, 1904: 567-568. (21 entries. 1865-1903. Chronol.)
- 3274 TORNAU, FRIEDRICH KARL AUGUST, 1877-1914.**
 KAUNHOWEN, F. Zum Gedächtnis Friedrich Tornaus. Deutsch. geol. Gesell., Zeit. 66, 1914, Monatsb.: 414. (11 entries. 1903-15. Chronol.)
- 3275 TOUCAS, JOSEPH ARISTIDE, 1843-1911.**
 PERVINQUÈRE, L. Liste des publications d'Aristide Toucas. Soc. géol. France, Bull. 4th ser. 12, 1912: 382-384. (74 entries. 1873-1910. Chronol.)
- 3276 TRAQUAIR, RAMSAY HEATLEY, 1840-1912.**
 Eminent living geologists. Ramsay Heatley Traquair. Geol. Mag., n. s. (V) 6, 1909: 245-250. (128 entries. 1862-1908. Chronol.)
- 3277 TRASK, JOHN B., 1824-79.**
 VOGDES, A. W. A bibliographical sketch of Doctor John B. Trask first State Geologist of California. San Diego Soc. Nat. Hist., Trans. 1, no. 2, 1907: 28-30. (21 entries. 1855-66. Chronol.)
- 3278 TRAUTSCHOLD, HERMANN, ADOLFOWITSCH, 1817-1902.**
 KRISTAFOVIC, N. Nekrolog und Verzeichniss der wissenschaftlichen Arbeiten von H. A. Trautschold. Ann. géol. et min. Russ., 6-I, 1903: 74-79. (166 entries. 1857-98 Chronol.)
- 3279 TROOST, GERALD, 1776-1850.**
 GLENN, L. C. Gerald Troost. Am. Geol., 35, 1905: 90-94. (55 entries. 1807-50. Chronol.)
- 3280 TUCCIMEI, GUISEPPE, 1851-1915.**
 MELI, ROMOLO. Elenco bibliografico dei lavori attinenti alla geologia. Soc. geol. ital., Boll. 35, 1916: xcv-xcviii. (63 entries. 1878-1914. Chronol.)
- 3281 TUOMEY, MICHAEL, 1805-57.**
 VOGDES, A. W. Annotated list of the writings of Prof. Tuomey. Am. Geol., 20, 1897: 210-212. (22 entries. 1842-58. Chronol.)
- 3282 UHLIG, VICTOR KARL, 1857-1911.**
 BRANCA, W. Viktor Uhlig. Deutsch. geol. Gesell., Zeit. 63, 1911, Monatsb.: 393-396. (72 entries. 1878-1910. Chronol.)
- ULRICH, GEORGE HENRY FREDERICK, 1830-1900. See 3242.**
- 3283 USSING, NIELS VIGGO, 1864-1911.**
 BØGGILD, O. B. Niels Viggo Ussing. . . . Dansk geol. foren., Meddel. 4, 1912-1915: 16-18. (49 entries. 1888-1912. Chronol.)
- 3284 VALLÉE, POUSSIN, CHARLES LOUIS JOSEPH XAVIER DE LA, 1827-1903.**
 Liste des publications de Charles de la Vallée Poussin. Soc. géol. Belg., Ann. 31, 1903-04: B116-B124. (110 entries. n. d. Subj.)
- 3285 VAN HISE, CHARLES RICHARD, 1857-1918.**
 LEITH, C. K. Memorial of Charles Richard Van Hise. Geol. Soc. Am., Bull. 31, 1919: 107-110. (60 entries. 1882-1912. Chronol.)
- VASCONCELLOS PEREIRA CABRAL, FREDERICO AUGUSTO DE. See 3023.**
- 3286 VASSEUR, CASIMIR GASTON, 1855-1915.**
 BLAYAC, J. Liste des publications de Gaston Vasseur. Soc. géol. France, Bull. 4th ser. 16, 1916: 279-285. (113 entries. 1873-1917. Subj. Chronol.)
- REPÉLIN, J. Notice sur la vie et les travaux de G. Vasseur. Marseille. Fac. sci., Ann. 24, fasc. 1, 1916: 19-27. (110 entries. 1866-1915. Chronol.)**

* Not seen.

- 3287 VAUGHAN, ARTHUR, 1868-1915.
R., S. H. Obituary. *Geol. Mag.*, n. s. (VI) 3, 1916: 94-95. (32 entries. 1897-1910. Chronol.)
- 3288 VAUGHAN, THOMAS WAYLAND, 1870-
VAUGHAN, T. W. Contribution to the geology and paleontology of the West Indies. Washington, 1919. *Carnegie Inst. Wash.*, Pub. 291. (Papers, 8. 17 entries. 1915-19. Chronol.)
- 3289 WACHSMUTH, CHARLES, 1829-96.
CALVIN, SAMUEL. Memoir of Charles Wachsmuth. *Geol. Soc. Am.*, Bull. 8, 1897: 376. (21 entries. 1866-95. Chronol.)
- 3290 WAGNER, WILLIAM. 1796-1885.
DALL, W. H. Notes on the paleontological publications of Professor William Wagner. *Wagner Inst. Sci.*, Trans. 5, 1898, no. 2. (2 entries. 1838?-39. Chronol.) Includes references to plates of fossils for which no texts were printed.)
- 3291 WAHNSCHAFTE, FELIX, *i. e.*, GUSTAV ALBERT BRUNO FELIX, 1851-1914.
KRUSCH, [P.]. Zum Gedächtnis Felix Wahnschaffes. *Deutsch. geol. Gesell.*, Zeit. 66, 1914: Monatsb.: 75-80. (110 entries. 1880-1914. Chronol.)
LINSTOW, O. VON. Verzeichnis der Schriften von F. Wahnschaffe. *Zeit. f. Gletscherk.*, 9, 1914-15: 211-217. (132 entries. 1875-1914. Chronol.)
- 3292 WALCOTT, CHARLES DOOLITTLE, 1850-
Eminent living geologists: Dr. Charles Doolittle Walcott. *Geol. Mag.*, n. s. (VI) 6, 1919: 7-10. (67 entries. 1875-1918. Chronol.)
- 3293 WALKER, JOHN FRANCIS, 1839-1907.
Obituary. *Geol. Mag.*, n. s. (V) 4, 1907: 384. (22 entries. 1866-1905. Chronol.)
- 3294 WATTS, WILLIAM WHITEHEAD, 1860-
Eminent living geologists: William Whitehead Watts. *Geol. Mag.*, n. s. (VI) 2, 1915: 485-487. (68 entries. 1883-1912. Chronol.)
- 3295 WEISBACH, ALBEN, 1833-1901.
GOLDSCHMIDT, VICTOR. Alben Weisbach. *Centralb. f. Min.*, 1902: 424-425. (42 entries. 1858-1900. Chronol.)
- 3296 WERNER, ABRAHAM GOTTLÖB, 1750-1817.
BECK, RICHARD. Abraham Gottlob Werner. . . . Zu seinem hundert-jährigen Todestage. *Jahrb. f. Berg.-u. Hüttenw. Sachsen*, 1917: A47-A48. (33 entries. 1780-1818. Chronol.)
- 3297 WHITAKER, WILLIAM, 1836-
Eminent living geologists: William Whitaker. *Geol. Mag.*, n. s. (V) 4, 1907: 52-58. (182 entries. 1860-1906. Chronol.)
- 3298 WHITE, CHARLES ABIATHAR, 1826-1910.
DALL, W. H. Charles Abiathar White, 1826-1910. *Nat. Acad. Sci.*, *Biog. Mem.* 7, 1911: 230-243. (234 entries. 1860-1908. Chronol.)
STANTON, T. W. Final supplement to the catalogue of the published writings of Charles Abiathar White, 1897-1908. *U. S. Nat. Mus.*, *Proc.* 40, 1911: 197-199. (Nos. 212-239. 1898-1908. Chronol.)
- 3299 WHITE, THEODORE GREELY, 1872-1901.
KEMP, J. F. Memoir of Theodore Greely White [with bibliography.] *Geol. Soc. Am.*, Bull. 13, 1902: 517. (7 entries. n. d.)
RIES, HEINRICH. Theodore Greely White. *Am. Geol.*, 28, 1901: 270. (7 entries. n. d.)
- 3300 WHITEAVES, JOSEPH FREDERICK, 1835-
Eminent living geologists: Joseph Frederick Whiteaves. *Geol. Mag.*, n. s. (V) 3, 1906: 437-442. (129 entries. 1857-1906. Chronol.)
- 3301 WHITFIELD, ROBERT PARR, 1828-1910.
CLARKE, J. M. Memoir of Robert Parr Whitfield. *Geol. Soc. Am.*, Bull. 22, 1910: 26-32. (110 entries. 1862-1908. Chronol.)
HUSSAKOF, LOUIS. Bibliography of Robert Parr Whitfield. *N. Y. Acad. Sci.*, Ann. 20, 1911: 391-398. (110 entries. 1862-1908. Chronol.)
- 3302 WHITNEY, JOSIAH DWIGHT, 1819-96.
BREWSTER, E. T. Life and letters of Josiah Dwight Whitney. Boston and N. Y., 1909, 411 pp. (Bibl., 387-40. 135 entries. 1845-80. Chronol.)
- WILKINSON, CHARLES SMITH, 1843-91. *See* 3242.

- 3302a **WILLIAMS, GEORGE HUNTINGTON**, 1856-1894.
George Huntington Williams. A memorial by friends for friends. 1856-1894. n. p. p. 1896. 150 pp. (Bibl., 117-122. 72 entries. 1882-95. Chronol.)
- 3303 **WILLIAMS, HENRY SHALER**, 1847-1918.
CLELAND, H. F. Memorial of Henry Shaler Williams. Geol. Soc. Am., Bull. 30, 1918: 52-65. (370 entries. 1873-1917. Chronol.)
- 3304 **WILLIAMSON, WILLIAM CRAWFORD**, 1816-87.
WILLIAMSON, W. C. Reminiscences of a Yorkshire naturalist. . . . edited by his wife. London, 1896, 228 pp. (Writings, 217-228. 144 entries. 1834-95. Chronol.)
- 3305 **WILLMOTT, ARTHUR BROWN**, 1866-1914.
COLEMAN, A. P. Memorial of A. B. Willmott. Geol. Soc. Am., Bull. 27, 1915: 38. (8 entries. 1897-1908. Chronol.)
- 3306 **WINCHELL, NEWTON HORACE**, 1839-1914.
UPHAM, WARREN. Memoir of Newton Horace Winchell. Geol. Soc. Am., Bull. 26, 1914: 31-46. (327 entries. 1861-1914. Chronol.)
- 3307 **WRIGHT, ALBERT ALLEN**, 1846-1905.
WILDER, F. A. Memoir of Albert Allen Wright. Geol. Soc. Am., Bull. 17, 1906: 690. (23 entries 1874-1905. Chronol.)
- WRIGHT, G. F. Albert Allen Wright. Am. Geol., 36, 1905: 67-68. (27 entries. 1874-1905. Chronol.)
- 3308 **WRIGHT, GEORGE FREDERICK**, 1838-1921.
WRIGHT, G. F. Story of my life and work. Oberlin, O. 1916, 459 pp. (Bibl., 437-459. 442 entries. 1871-1916. Chronol.)
- 3309 **ZEILLER, RENÉ, i. e. CHARLES RENÉ**, 1847-1915.
BONNIER, GASTON. Liste des travaux de René Zeiller. Rev. gén. bot., 29, 1917: 40-55, 73-88. (639 entries. 1870-1915. Chronol.)
- DOUVILLE, H. René Zeiller. Soc. géol. France, Bull. 4th ser. 17, 1917: 314-320. (134 entries. 1870-1915. Chronol.)
- 3310 **ZIRKEL, FERDINAND**, 1838-1912.
BRAUNS, R. Verzeichnis der Veröffentlichungen von Ferdinand Zirkel. Centralb. f. Min., 1912: 518-521. (54 entries. 1859-1911. Chronol.)
- 3311 **ZITTEL, KARL ALFRED VON**, 1839-1904.
Obituary. Geol. Mag., n. s. (V) 1, 1904: 94-96. (63 entries. 1859-99. Chronol.)
- 3312 **ZYNDEL, FORTUNAT**, 1882-1917.
BUXTORF, AUG. Dr. Fortunat Zyndal, 1882-1917. Schw. naturf. Gesell., Verh. 99, 1917: 96. (9 entries. 1908-13. Chronol.)
See 3185.

AUTHOR INDEX

- A., A., 2926.
 Abel, O., 927, 2090, 2802.
 Adams, C. C., 2091.
 Adams, F. D., 244, 619, 2155, 2933.
 Adams, G. I., 1533, 2137, 2137a.
 Adams, J. H., 1913.
 Adkins, W. S., 2665, 2666.
 Agamennone, G., 951.
 Agthe, F. T., 2125.
 Aguilar y Santillán, Rafael, 1700, 1701, 1702, 1703.
 Aguilera, J. G., 1704, 1705, 1706, 2976.
 Ahlander, F. E., 9.
 Ahlberg, Johannes, 649, 2457.
 Ahlmann, H. W., 1968, 2426.
 Ahnert, E. v., 2446.
 Aigner, Andre, 341, 342.
 Aigner, August, 343.
 Albrecht, Theodor, 2372.
 Alcock, F. J., 1647.
 Alden, W. C., 1408, 2889.
 Alderson, V. C., 2015.
 Alessandri, G. de, 867, 3228.
 Allan, J. A., 17, 519, 619.
 Allen, Lucy, 3189.
 Allen, M. A., 401, 1640, 2000, 2001, 2002.
 Alling, M. N., 569.
 Altpeter, Otto, 1136.
 Alvarez, H. H., 711.
 Alvarez, Nazario, 1311.
 Ames, M. L., 3135.
 Ami, H. M., 612, 613, 614, 2950, 3000, 3001, 3242.
 Aminoff, G., 402.
 Ammon, Ludwig von, 3064.
 Ampferer, Otto, 145, 344, 345, 3238, 3252.
 Amsler, Alfred, 1511b.
 Anastasiu, Victor, 2335.
 Anderson, C., 1733.
 Anderson, F. M., 570, 846.
 Anderson, G. E., 818.
 Anderson, Robert, 572.
 Anderson, William, 1825.
 Andersson, J. G., 257, 709.
 Andrée, K., 403, 651, 1247, 2427, 2428.
 Andrews, C. W., 690, 2295, 2803.
 Andrews, E. C., 1072, 1292, 1867, 1868.
 Andrimont, René d', 2745.
 Andrusov, N., 2348.
 Angel, Franz, 2271.
 Angelis d'Ossat, G. de, 146, 951a, 1456, 3251.
 Anteys, Ernst, 1512, 1777.
 Anthula, D. J., 638.
 Antipa, Gr., 898.
 Antonius, Otto, 1374.
 Arbenz, Paul, 2429.
 Arber, E. A. N., 627, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1869, 1914, 2065, 2150, 2455.
 Archangelskij, A. D., 847.
 Arctowski, Henryk, 2841.
 Argetoiaia, I. P. Ionescu-, *See* Ionescu-Argetoiaia, I. P.
 Arldt, Theodor, 100, 101, 2079, 2080, 2081, 2092.
 Armachevsky, P., 2349.
 Arndt, Heinrich, 2578.
 Arnold, Ralph, 571, 572, 573, 585, 1778, 2856.
 Arthaber, Gustav von, 128.
 Ashley, G. H., 712, 1543, 3207.
 Ashley, H. E., 695.
 Asselbergs, Étienne, 449.
 Atwood, W. W., 111, 1409, 2779.
 Auerbach, H. A., 2312, 2313.
 Aurand, H. A., 769, 1132.
 Austin, Lawrence, 51.
 Avebury, J. L., *Baron*, 1015, 2578a.
 Babb, C. C., 1591.
 Babcock, K. C., 2953.
 Bachellery, A., 1763.
 Baeckstrom, Olof, 409.
 Bagg, R. M., *jr.*, 1137, 1138, 1139, 1140.
 Bailey, E. B., 1368, 2407, 2408, 2408a.
 Bailey, E. H. S., 1352, 1741.
 Bailey, G. E., 478.
 Bailey, L. W., 1847, 1848.
 Bain, H. F., 2890.
 Baker, C. L., 574, 2667.
 Baker, F. C., 1289, 1779.
 Baker, M. B., 619.
 Baker, R. T., 554.
 Baldwin, Walter, 1824.
 Baldwin-Wiseman, W. R., 2746.
 Ball, John, 996, 997.
 Ball, L. C., 807, 2284, 2285, 2286, 2898.
 Ball, S. H., 444, 575, 2904, 2905.
 Ball, V., 713.
 Ballore, F. Montessus de, *see* Montessus de Ballore, F.
 Balss, Heinrich, 868.
 Balta, J., 3208.
 Baltzer, A., 1457, 3169a.
 Bancroft, Howland, 286, 787, 2679, 2857.
 Bancroft, J. A., 808, 3015.
 Bancroft, N., 1529.
 Baragwanath, Wm., *jr.*, 2822.
 Baratta, Mario, 952, 953, 2946.
 Barbour, E. H., 1636, 1830, 3119.
 Bárdarson, G., 1240.
 Barker, E. E., 2210.
 Barker, G. F., 3053.
 Barlow, A. E., 619, 840, 3195.
 Barnitzke, J. E., 1536.
 Barrett, N. O., 1410.
 Barron, T., 998.
 Barrow, George, 2408b, 2408c, 2408d, 2417a.
 Barrows, W. L., 1221.
 Bartels, W., 1377.
 Bartholmès, François, 2579.
 Barton, G. H., 3187.
 Bartrum, J. A., 1938, 1938a.

- Bascom, Florence, 2126.
 Bassani, Francisco, 23, 3267.
 Bassler, R. S., 542, 547, 552, 653, 1654, 2041.
 Bastin, E. S., 250, 770, 1320, 1321, 1322, 2107.
 Bataller, J. R., 1595.
 Bateman, A. M., 2683.
 Bather, F. A., 771, 979, 980, 986.
 Bauer, C. M., 1862.
 Bauer, Max, 3046, 3209.
 Baumberger, Ernst, 848, 849, 849a, 2580, 2581, 2582.
 Baumhauer, H., 878.
 Baur, G., 2296.
 Baur, K., 1741a.
 Bawson, H. H., 3084.
 Bayley, W. S., 1726, 1726a.
 Beadnell, H. J. L., 999.
 Beal, C. H., 2003.
 Beck, Heinrich, 637.
 Beck, Paul, 2583.
 Beck, Richard, 467, 2043, 3011, 3045, 3176, 3296.
 Becke, F., 879, 1691.
 Becker, G. F., 2151, 3022.
 Becquerel, Jean, 2942.
 Bédé, Paul, 72.
 Beder, Roberto, 260, 2899.
 Beecher, C. E., 1082, 3151.
 Beecher, L. P., 2943.
 Beetz, Werner, 1372.
 Beger, P. J., 2389, 2389a.
 Behr, F. M., 939.
 Behrend, Fritz, 102, 445.
 Bell, B. T. A., 33.
 Bell, J. M., 1915, 1916, 1917, 1918, 2019.
 Bell, W. A., 619.
 Benecke, E. W., 196, 197.
 Benson, W. N., 333, 1870, 2440.
 Bent, A. H., 2888.
 Bentivoglio, T., 1458.
 Berendt, G., 1272.
 Berg, G., 468, 2231.
 Bergeat, Alfred, 1443.
 Bergeat, Emil, 399.
 Bergt, W., 2390.
 Berkey, C. P., 2204.
 Berolsheimer, V., 2733.
 Berry, E. W., 1069, 1656, 2066.
 Bertrand, E. G., 1871.
 Bertrand, Léon, 1156, 3142.
 Bertrand, Paul, 3061.
 Berwerth, Friedrich, 1697, 1698.
 Beushausen, L., 2232.
 Beutler, Karl, 543.
 Beyschlag, F., 2044, 2045, 3073.
 Bibbins, A. B., 1656.
 Bigot, A., 1157, 1158, 2945.
 Billows, Eduard, 2951.
 Bishop, H. R., 1506.
 Bistram, A. *freiherr* von, 147.
 Bjørlykke, K. O., 2272.
 Blaas, J., 148.
 Black, G. F., 1858, 2408e.
 Blackwelder, Eliot, 685, 2768, 2906.
 Blake, J. F., 1016, 3263.
 Blanc, H., 3035.
 Blanchard, R. C., 287.
 Blanchard, Raoul, 149.
 Blanchet, Fernand, 850.
 Blanck, E., 2465.
 Blanckenhorn, Max, 2642.
 Blaschke, Friedrich, 890.
 Blatchford, T., 2870.
 Blatchley, W. S., 643.
 Blayac, Joseph, 137, 3013, 3286.
 Bleeck, A. W. G., 1506a.
 Blösch, Eduard, 2584.
 Blumenthal, Moritz, 2585, 2586.
 Boalich, E. S., 576.
 Boas, J. E. V., 1596.
 Bode, Arnold, 1363.
 Boden, Karl, 1575.
 Bodenbender, Guillermo, 261, 262, 2956.
 Böggild, O. B., 1340, 1341, 3256, 3283.
 Böhi, Alice, 3082.
 Böhm, Joh., 869, 1554, 2501.
 Böhndel, E., 2587.
 Boehnke, Kunibert, 2527.
 Böse, Emil, 209, 1707, 1708, 1709, 1710.
 Bogačev, V., 2350.
 Bogdanowitsch, K., 2351.
 Bogoslawsky, N. A., 210, 1513, 2352.
 Bolton, L. L., 620.
 Bonard, A., 2588.
 Bonarelli, Guido, 263, 264, 1485.
 Bone, W. A., 714.
 Bonillas, Y. S., 288.
 Bonney, T. G., 150, 1134, 1692.
 Bonnier, Gaston, 3309.
 Borchert, A., 265, 1780.
 Borgstrom, L. H., 2398.
 Borissjak, A., 2353.
 Born, Axel., 1364.
 Boswell, P. G. H., 1017, 1018, 1334.
 Bosworth, T. O., 1653, 2016.
 Boule, Marcellin, 1596a, 2962, 3049.
 Bourret, René, 1428a.
 Boussac, Jean, 1158a.
 Boutwell, J. M., 2780, 2781.
 Bovee, G. G., 2907.
 Bowie, C. P., 2004.
 Bowman, H. L., 1805.
 Bownocker, J. A., 3272.
 Boyle, A. C., jr., 577.
 Bradley, W. W., 578, 1685.
 Bräuhäuser, Manfred, 2900, 2901.
 Branca, W., 3282.
 Brandes, Theodor, 2082.
 Branner, J. C., 300, 419, 506, 507, 696, 814, 954, 2155a, 2990, 3007, 3166.
 Branson, F. W., 3245b.
 Braun, L., 2589.
 Brauns, R., 2269, 2533, 2937, 3310.
 Breckenridge, L. P., 760.
 Breger, C. L., 2005.
 Bremner, Alexander, 2409.
 Bresson, A., 2260.

- Brewster, E. T., 3302.
 Bridge, Norman, 2981.
 Broadhead, G. C., 3261.
 Brockmann-Jerosch, H., 2590.
 Broeck, E. Van den, 80.
 Brösamlen, Richard, 1227.
 Broili, F., 414, 2095, 3223.
 Bromehead, C. E. N., 1021b.
 Brooks, A. H., 112, 113, 114, 115, 715, 1444, 1731, 3080.
 Brooks, C. E. P., 2273.
 Brooks, W. K., 3099.
 Broom, Robert, 1597.
 Brouwer, H. A., 945, 2690.
 Brown, Barnum, 2297.
 Brown, C. S., 1772.
 Brown, G. C., 579.
 Brown, J. C., 686.
 Brown, M. Walton, 62.
 Brown, R. M., 693, 1773.
 Brown, S. B., 2869.
 Brown, T. C., 819, 2039.
 Browne, A. J. Jukes-, *see* Jukes-Browne, A. J.
 Bruce, E. L., 520, 1648.
 Brückner, Eduard, 176, 1241, 1294, 3035.
 Brüggén, Hans, 850a.
 Brüggén, J., 682.
 Bruhns, W., 1273.
 Brun, Albert, 2842.
 Brusina, Spiridon, 1781.
 Bryan, Kirk, 1862a, 2524.
 Bucher, W. H., 2429a.
 Bucher, Walter, 2664.
 Buckman, H. O., 2865.
 Buckman, S. S., 485, 486, 1019, 1020.
 Buddington, A. F., 1692.
 Bücking, H., 198, 1159, 2535.
 Buehler, H. A., 2968.
 Bülow, E. v., 1459.
 Bülow-Trummer, E. v., 659.
 Bugge, Carl, 1969.
 Bukowski, Gejza v., 321, 346.
 Bullen, R. A., 1071.
 Bumüller, C., 562.
 Burchard, E. F., 655, 1133, 1348, 1445, 1446, 1570, 1740.
 Burckhardt, Carl, 266, 266a, 266b, 1711, 1712.
 Bureau, E., 1160.
 Burling, L. D., 2715.
 Burr., H. T., 1668.
 Burre, Otto, 2880.
 Burroughs, E. H., 8, 16.
 Burrows, A. G., 2020.
 Burwash, E. M. J., 521.
 Bury, Henry, 1021.
 Buschman, J. O. *freiherr* von, 2373.
 Bush, L. P., 2943.
 Butler, B. S., 2673, 2782, 2783.
 Butler, G. M., 401, 795, 1640.
 Butters, R. M., 773.
 Buttgenbach, H., 563.
 Buxtorf, August, 2591, 2592, 2592a, 3065a, 3259, 3312.
 Cable, E. J., 1576.
 Cacciamali, G. B., 1460.
 Cadman, John, 1453, 2723.
 Cady, G. H., 1410a.
 Cairnes, D. D., 522, 619, 2916.
 Calhoun, F. H. H., 3159.
 Calker, F. J. P., van, 1834.
 Calkins, F. C., 1811.
 Call, R. E., 645.
 Calvert, W. R., 1809.
 Calvin, Samuel, 3289.
 Camacho, Heriberto, 2746a.
 Cambier, René, 450, 2253.
 Camerana, E., 1461.
 Campbell, M. R., 1820.
 Campbell, Robert, 2410.
 Camsell, Charles, 523, 524, 619, 1582, 2971.
 Canel, C., 1179.
 Cantrill, T. C., 2855.
 Cantuniari, St. N., 2336.
 Canu, F., 544, 545, 546, 547.
 Capacci, C., 2384.
 Capps, S. R., 116, 117.
 Carandell, Juan, 2506.
 Card, G. W., 2871.
 Carez, L., 2261.
 Carney, Frank, 1073, 2442.
 Carpentier, A., 2970.
 Carrasco, Elvira, 1090.
 Carruthers, R. G., 2411.
 Case, E. C., 2296, 2298, 2299, 2300, 2301, 2804.
 Cash, C. G., 2422a.
 Castello, W. D., 580.
 Castro, C. de, 1686.
 Cayeux, Lucien, 2430.
 Cereceda, Juan Dantín, *see* Dantín Cereceda, Juan.
 Chadwick, G. H., 1877.
 Chamberlin, T. C., 1293.
 Chambers, E. J., 615.
 Chambrier, Paul de, 2005a.
 Chantre, Ernest, 2977, 3028.
 Chapman, Frederick, 334, 1105, 1141, 2872.
 Chaput, E., 1161, 2659.
 Chavanne, J. Daresté de la, *see* Daresté de la Chavanne, J.
 Checchia-Rispoli, G., 3241.
 Choffat, Jules, 69.
 Choffat, Paul, 6, 69, 2206, 2207, 2208, 2931, 3003, 3023, 3143.
 Christ, Peter, 2593.
 Christy, Miller, 1741b.
 Christy, S. B., 3131.
 Chudeau, R., 103.
 Cirkel, Fritz, 311, 312, 1323, 1719, 2276.
 Clapp, C. H., 17, 525, 526, 527, 528.
 Clapp, F. G., 616, 1577, 1669, 2127, 2128.
 Clark, B. L., 581.
 Clark, W. B., 330, 981, 1655, 1655a, 1656, 1657, 1963, 2832.
 Clarke, E. de C., 1917, 1919, 2873, 2877.
 Clarke, F. W., 1237.

- Clarke, J. M., 619, 914, 1878, 2519, 2980, 3094, 3125, 3301.
 Claypole, Edward, 914a.
 Cleland, H. F., 1247a, 1879, 2891, 3303.
 Clements, J. M., 1764.
 Clerc, Modeste, 2594.
 Clerici, E., 2959.
 Cloos, Hans, 2595.
 Clough, C. T., 2410a.
 Clucas, R. J. M., 75.
 Cockayne, L., 944.
 Cockrill, Elizabeth, 2655, 2658.
 Colani, M., 1428.
 Cole, G. A. J., 1079a, 1439.
 Cole, L. H., 1349, 2374.
 Coleman, A. P., 619, 3305.
 Collet, L. W., 2431.
 Colliander, Elof, 86.
 Collier, A. J., 1810, 2680.
 Collins, J. H., 1021a.
 Collins, W. H., 619, 2021, 2022.
 Collot, Louis, 211, 1162.
 Combes, Paul, 1163, 1202.
 Comstock, T. B., 2981.
 Cook, C. W., 1727.
 Cooke, H. G., 2277.
 Corkill, E. T., 1720.
 Cornelius, H. P., 151, 152, 2596.
 Cornet, J., 446, 451.
 Cornu, F., 469, 1759.
 Corstorphine, G. S., 1300, 2469.
 Corti, Hércules, 267.
 Cotter, G. De P., 49, 1990.
 Cottle, G. B., 3055.
 Cotton, C. A., 1920.
 Cotton, L. A., 920.
 Couffon, Olivier, 1164.
 Courty, G., 2474.
 Cox, G. H., 1411.
 Craig, E. H. Cunningham-, *see* Cunningham-Craig, E. H.
 Cramer, Rudolf, 1106, 2190, 2458.
 Crampton, C. B., 2411.
 Crane, W. R., 1762.
 Craveri, Michele, 1462, 1463, 1464, 1465.
 Crawford, R. D., 774, 775, 778.
 Crider, A. F., 302.
 Crinó, Sebastiano, 1466.
 Crosby, W. O., 1670, 3099.
 Cross, Roy, 2005b.
 Cross, Whitman, 776, 2294, 3021.
 Culin, F. L., *jr.*, 289, 554a, 652, 654, 1236, 1350, 1587, 1721.
 Cumings, E. R., 487, 548, 1818, 3206.
 Cunningham-Craig, E. H., 2411a.
 Curie, P., 3046.
 Currie, James, 1085.
 Curtis, A. H., 1640a.
 Curtis, H. A., 779.
 Cuttriss, S. W., 644.
 Dacqué, E., 335, 977, 1514, 2083.
 Dahms, Paul, 208.
 Dainelli, Giotto, 1070, 1467.
 Dale, Elizabeth, 2259.
 Dale, N. C., 1954.
 Dale, T. N., 1314, 1315, 1316, 1650, 1651, 1880, 2462, 2463, 2464, 2794, 2795.
 Dall, W. H., 1782, 2943, 3048, 3290, 3298.
 Dalloni, Marius, 2262.
 Dal Piaz, G., 1486, 3188.
 Daly, R. A., 619, 1693, 1982, 2064.
 Dammer, Bruno, 2233.
 Dana, E. S., 2967.
 Daniels, Joseph, 716.
 Dantín Cereceda, Juan, 2506a.
 Daresté de la Chavanne, J., 138.
 Darton, N. H., 7, 481, 1859, 1863.
 David, T. W. E., 1872.
 Davies, A. M., 2092a.
 Davies, G. M., 2681.
 Davis, C. A., 2107, 2108, 2109, 2110.
 Davis, W. M., 815, 1074, 1087, 1312, 1821, 1852, 2168, 2660, 2784.
 Davy, L., 1165, 1166.
 Dean, Bashford, 1107, 1108, 3018.
 Dean, H. J., 2322.
 Deecke, W., 2234, 2957, 2982.
 De Geer, E. H., 3002.
 De Geer, Sten, 1127.
 Dehorne, Yvonne, 1166a.
 Delage, A., 3224.
 De la Rive, L., 3230.
 De la Vault, Mm. Roland, 1167.
 Delgado, J. F. N., 2209, 3003.
 Delhaes, G., 2100.
 Delhaes, Wilhelm, 2597.
 Delkeskamp, Rudolf, 809.
 De Lury, J. S., 1649.
 Denckmann, A., 2881.
 Deninger, Karl, 1228, 2385.
 Denis, L. G., 617.
 Denis, Theo, 717, 2375.
 Dennant, John, 2823.
 Denuce, J., 245.
 Depéret, Charles, 1168, 1598, 3155.
 Deprat, J., 1142, 1336, 1337.
 Derby, A. G., 65.
 Derby, O. A., 508, 509.
 Desbuissons, Léon, 2597a.
 Dewey, H., 1021b.
 Dick, W. J., 2155.
 Dickerson, R. E., 582.
 Dickson, C. W., 2023.
 Diener, C., 488, 660, 1373, 1412, 2712, 3170.
 Dietrich, W. O., 2756, 2902.
 Dietz, Eugen, 1229.
 Diller, J. S., 313, 3017.
 Dimitrescu, A. G., 2336a.
 Disler, Carl, 2598.
 Dittrich, M., 2324.
 Dixon, Russell, 71.
 Doelter, Cornelio, 347.
 Dole, R. B., 2747.
 Dollet, Aug., 1202.
 Dollfus, G. F., 451, 1169, 1169a, 2867a, 3106.
 Dompè, Luigi, 3183.
 Doncieux, Louis, 838, 1170.

- Donnelly, T. F., 810.
 Dorsey, C. W., 2468.
 Douglas, J. A., 475, 2167.
 Douglass, Earl, 1599.
 Douville, Henri, 212, 2978, 3210, 3233, 3309.
 Douvillé, Robert, 661, 1144, 1783, 2507.
 Douxami, H., 3197.
 Dowling, D. B., 31, 132, 618, 718.
 Drake, H. C., 1022.
 Dreger, Julius, 2122, 3264.
 Dreher, Otto, 422.
 Dresser, J. A., 2441.
 Drysdale, C. W., 529, 530, 531.
 Du Bois, G. C., 950a.
 Düll, Ernst, 994.
 Dueñas, E. I., 2138.
 Duerden, J. E., 820.
 Dürrfeld, V., 423.
 Dun, W. S., 337, 338, 1555, 1873.
 Dunbar, C. O., 2656.
 Dunn, E. J., 1992, 3242.
 Dunstan, B., 719, 2287.
 Duparc, Louis, 2123, 2174, 2174a.
 Durley, R. J., 741.
 Du Toit, A. L., 1826, 2691.
 Dyhrenfurth, Günter, 2633, 3252.
 Dynan, J. L., 2125.
 Eakle, A. S., 583, 584.
 Earle, R. B., 1447.
 Eastman, C. R., 1107, 1109, 1110, 2096.
 Easton, N. W., 483.
 Eaton, [Arthur] 2056.
 Ebeling, Franz, 2459.
 Eck, Heinrich, 390, 2235.
 Eck, Otto, 662.
 Eckardt, W. R., 1242.
 Eckel, E. C., 654a, 655, 1448, 1776, 2833.
 Einecke, G., 1274.
 Eldridge, G. H., 585.
 Elftman, A. H., 1765.
 Elles, G. L., 1328.
 Ellis, A. J., 586, 938, 1742.
 Ellis, Mary, 60.
 Ells, S. C., 465.
 Elworthy, R. T., 1743, 1746.
 Emerson, B. K., 1671, 1672.
 Emig, W. H., 2710.
 Emmons, S. F., 777, 1713, 2046, 3021, 3116.
 Emmons, W. H., 1592, 1811, 1839, 1845, 2047.
 Emszt, Koloman, 400.
 Enderle, Julius, 322.
 Enderlein, Günther, 1429.
 English, Thomas, 896.
 Enquist, F., 1289a.
 Erasmo, Geremia d', 2936.
 Erdmannsdörffer, O. H., 2903.
 Erikson, Bertil, 2538.
 Erni, Arthur, 1514a.
 Eskola, Pentti, 1099.
 Etheridge, R., jr., 338, 1555, 2872.
 Etzold, Franz, 2992.
 Evans, Isabel P., 1690, 2941.
 Evans, J. W., 1334.
 Ewald, Rudolf, 2508.
 Faas, A., 2354.
 Fabiani, Ramiro, 489, 1468, 1600.
 Fairbault, E. R., 619.
 Fairchild, H. L., 942, 1853, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 2178, 3131.
 Falkenberg, Otto, 2267.
 Fallot, Emmanuel, 2985a.
 Fallot, Paul, 396.
 Fantappié, Liberto, 2928.
 Farguharson, R. A., 2876a.
 Faudel, 3059.
 Faure-Marguerit, G., 821.
 Favre, François, 213.
 Favre, Georges, 1093.
 Favre, Jules, 1180a, 2598a.
 Fawns, Sidney, 2682.
 Fay, A. H., 118, 1762a.
 Felix, J., 762.
 Fenneman, N. M., 720.
 Ferguson, D., 2412.
 Ferguson, H. G., 2488, 2683, 2833a.
 Fermor, L. L., 1413, 1563, 1641.
 Fernald, R. H., 1226.
 Ferrier, W. F., 30.
 Fersmann, A. von, 921, 1748, 1748a.
 Fettke, C. R., 1888.
 Ficheur, E., 3199.
 Field, R. M., 2129.
 Fieldner, A. C., 721, 722.
 Finckh, Ludwig, 2643.
 Finlayson, A. M., 1831, 1921, 2134, 2268, 2509.
 Finsterwalder, Sebastian, 153, 1294, 2955.
 Fiore, O. de, 1573.
 Fischer, A. H., 2857a.
 Fischer, Hermann, 424, 2466.
 Fisher, C. A., 1812, 1830.
 Fisher, E. F., 2661.
 Fisher, W. L., 2110a.
 Flett, J. S., 1022a, 2371, 3051.
 Fleury, E., 6, 2144, 2979.
 Fleury, Luis, 2209a, 2381.
 Flores, T., 1714.
 Florin, Rudolf, 2254.
 Foerste, A. F., 1854.
 Förster, B., 482.
 Follansbee, Robert, 2322.
 Ford, W. E., 2967.
 Forel, F. A., 1294.
 Forir, H., 3031.
 Fourmarier, P., 3037.
 Fournier, Eugène, 1171, 2263, 2748.
 Fox-Strangways, C., 1023, 1024.
 Foye, W. G., 1097.
 Fraas, E., 425.
 Fraipont, Charles, 454, 2745.
 Franchi, S., 723, 1469.
 Franke, A., 1143, 2060.
 Franke, Fritz, 2333.
 Fraser, Colin, 1918, 1922, 1923.
 Frazer, Persifor, 2489, 2989, 3198.

- Frech, Fr., 214, 323, 2994, 3122.
 Free, E. E., 2467.
 Frei, Roman, 2599, 2600.
 Freise, Fr., 510.
 Frenguelli, Joaquín, 268.
 Frentzel, Alexander, 426.
 Frentzen, Kurt, 2713.
 Freshfield, D. W., 3231.
 Freund, L., 470.
 Frey, G., 1365.
 Frey, Oskar, 2789.
 Friedlander, Immanuel, 2843.
 Frisoni, Antonio, 1470.
 Frödin, Gustaf, 1088, 2539, 2540.
 Frödin, John, 2541.
 Fromme, J., 1367.
 Fuchs, Ernst, 2098.
 Früh, J., 2111.
 Fugger, Eberhard, 348, 349, 350.
 Fujii, K., 860.
 Fuller, M. L., 955, 1577, 1889, 2749, 2750, 2751, 2752.
 Funkquist, H. P. A., 899.
 Furchheim, Federico, 2820.
 Futterer, K., 154.

 Gachot, Heinrich, 2236.
 Gaebler, C., 724.
 Gagel, C., 2179, 2237, 2238, 2401, 2402, 2844.
 Gagnebin, E., 155.
 Gagnepain, F., 2970.
 Gaillard, C., 463.
 Galdi, B., 1461.
 Galdieri, Agostino, 2662, 3156.
 Gale, H. S., 479, 480, 720, 2211, 2212.
 Galea, R. V., 1594a.
 Galkin, Xenia, 332.
 Galloway, J. J., 1818.
 Gannett, R. W., 1748b.
 Gardner, J. H., 1864.
 Garnaud, P. J., 1171a.
 Garrey, G. H., 1845.
 Gaubert, P., 3038.
 Gautier, E. F., 1583.
 Gavelin, Axel, 2552.
 Geijer, Per, 1449, 2331, 2542.
 Geikie, Sir Archibald, 1248, 2413, 2414, 2415, 3163.
 Geinitz, E., 3052.
 Gentil, Louis, 139, 3270.
 George, R. D., 778, 779, 2726, 2775.
 Gerhardt, K., 851, 2792.
 Germain, Louis, 3140.
 Gerth, H. 269, 822, 2139, 2597.
 Gertz, Otto, 2543.
 Gesell, Sándor, 890a.
 Geyer, Georg, 3266.
 Gibson, Walcot, 1024a, 1025.
 Gidley, J. W., 1375.
 Gignoux, M., 199, 1172, 1183, 1471, 2187, 2386.
 Gilbert, G. K., 956, 2987, 3105.
 Giles, A. W., 1077, 1890, 2834.
 Gillitzer, Georg, 427, 428.

 Gilman, D. C., 2996.
 Gilmore, C. W., 2302.
 Giovanetti, Manuel, 267.
 Girardot, Albert, 1172a, 3190a.
 Giraud, Jean, 1173.
 Girty, G. H., 628, 780, 1533.
 Glangeaud, Ph., 1174, 1175.
 Glauert, Ludwig, 2874.
 Glenn, L. C., 1543, 2657, 3279.
 Goebel, Fritz, 129, 2239.
 Göhringer, August, 391.
 Görgey, R., 897, 1688, 1734, 2376, 2991.
 Gogarten, E., 1797, 2601.
 Goldschmidt, V. M., 564, 897, 921, 1970, 2270, 3295.
 Goldthwait, J. W., 619, 1089, 1409, 1673, 2024, 2443, 2786.
 Golitsyn, B. B., 2439.
 Golubjatnikow, D., 2355.
 Gómez de Larena, Joaquin, 2509a.
 Gómez Llueca, Federico, 2509b.
 Gonnard, Ferdinand, 1176.
 Goodspeed, G. E., jr., 17.
 Gordon, C. E., 822a, 1891.
 Gordon, C. H., 1866, 2668.
 Gortani, Michele, 1153, 1472, 1682.
 Gossner, B., 1264.
 Gothan, W., 1154, 2075.
 Gottschaldt, R., 56.
 Gould, C. N., 852.
 Grabau, A. W., 1249, 1432, 1674, 1892, 1893, 1956, 2033, 2377.
 Graber, H. V., 351.
 Granö, J. G., 206, 1808.
 Grant, M., 986.
 Grant, U. S., 2893, 2893a.
 Grasty, J. S., 408.
 Gratacap, L. P., 1875.
 Graton, L. C., 1866, 2685.
 Gray, F. W., 725.
 Greene, F. C., 1774.
 Greenly, Edward, 2853.
 Greger, D. K., 768, 2965.
 Gregory, H. E., 290, 803, 2171, 3081.
 Gregory, J. W., 240, 549, 823, 824, 987, 1078, 2076, 2156, 2213, 2790, 2824, 3220.
 Gregory, W. K., 1601, 2225, 2226, 2227.
 Gregory, Winifred, 1766, 1766a.
 Greppin, Ed., 2603.
 Gresley, W. S., 708.
 Grimsley, G. P., 1351, 1352.
 Grönwall, K. A., 607, 900, 901, 1537, 3168.
 Groom, Theodore, 2854.
 Grosch, P., 825, 2510.
 Grossouvre, A. de, 2927.
 Grosspietsch, O., 1091.
 Grout, F. F., 697, 781.
 Grozescu, H. G., 2337.
 Grubenmann, U., 873, 873a, 873b, 874, 2638.
 Grünling, Fr., 93, 678.
 Grundy, James, 1413a.
 Grutterink, J. A., 3237.
 Gubkin, J., 2356, 2357.
 Güll, Wilhelm, 1378.

- Günther, R. T., 1473.
 Guillemain, C., 104, 447, 1563a, 2776.
 Gulliver, F. P., 2444.
 Gunn, W., 1026, 1027, 2416, 2416a.
 Guppy, R. J. L., 2724.
 Gutzwiller, A., 2601a, 2602, 2603.
 Gwillim, J. C., 133.
- Haarmann, Erich, 1356.
 Haas, Otto, 1784.
 Hackl, O., 3109.
 Hackman, Victor, 1100.
 Hadding, Assar, 490, 902, 1329.
 Häberle, Daniel, 64, 2314, 2315, 2866.
 Hägg, Richard, 1785.
 Hagmann, Gottfried, 1602.
 Hague, Arnold, 3022.
 Hahn, F. F., 156, 157, 352, 1894.
 Halaváts, Gyula v., 1379, 1379a, 1380.
 Halberstadt, Baird, 3087.
 Halden, B. E., 2544, 2544a.
 Halet, F., 452.
 Halkyard, E., 1143a.
 Hall, A. L., 314, 841, 1722, 2692, 2693, 2694, 2695, 2696, 2697, 2698.
 Hall, C. W., 1767.
 Hall, James, 2519.
 Hall, T. C. F., 1567.
 Halle, T. G., 245a, 915, 1086, 2101, 2545.
 Hallimond, A. F., 413.
 Hamilton, A., 1924, 1925.
 Hamling, J. G., 36.
 Hammer, Wilhelm, 145, 158, 345, 353, 3215.
 Hammond, C. B., 3171.
 Haniel, C. A., 159, 663.
 Hann, Julius, 709a.
 Hanna, G. D., 119.
 Harbort, E., 1275, 2214, 2240.
 Harder, E. C., 389, 587, 1642, 1642a, 1768, 2787.
 Hardner, Poul, 900.
 Hares, C. J., 2498.
 Harker, Alfred, 1028, 2410a, 2417, 2417a.
 Harlé, Edouard, 1603, 2805.
 Harper, L. F., 763.
 Harper, R. M., 1129, 2112.
 Harrington, G. L., 120.
 Harris, G. D., 1578.
 Harris, W. J., 2825.
 Harrison, 2056.
 Hartmann, Adolf, 2607.
 Hartmann, Eduard, 354.
 Hartmann, M. L., 2730.
 Hartnagel, C. A., 1904.
 Hartz, N., 903, 904.
 Hartzell, J. C., 916.
 Harvie, Robert, 619.
 Haskell, D. C., 1957.
 Hassinger, Hugo, 355.
 Hatch, F. H., 1300, 1415, 2469.
 Hatcher, J. B., 928, 3072.
 Hatzeg, Valerius, *see* Popovici-Hatzeg, Valerius.
 Haug, Émile, 1177, 1178, 1250, 1308, 3076.
- Haupt, Oskar, 853.
 Hausen, Juan, 270.
 Hauswirth, Walt., 2601.
 Hawkesworth, E., 3092a.
 Hawkins, A. C., 1860.
 Hay, O. P., 1604, 2737, 2738, 2806.
 Hayasaka, I., 491, 837.
 Hayden, H. H., 98, 1414, 1415, 2677.
 Hayes, A. O., 1955.
 Hedström, Herman, 664, 2546, 2552.
 Heikes, V. C., 2783.
 Heim, Albert, 2604, 2605, 2608.
 Heim, Arnold, 160, 2606, 2607, 2608.
 Heimann, A., 2924a.
 Heimhalt, Hans Höfer von, *see* Höfer von Heimhalt, Hans.
 Hein, Chr., 2403.
 Helms, Richard, 1872.
 Hemmer, A., 629.
 Henderson, C. W., 782, 2056a, 2490, 2669.
 Henderson, J., 1926, 1927, 1928.
 Henderson, Junius, 781, 783, 784, 785, 785a.
 Hennig, Anders, 246, 1556, 2573.
 Hennig, Edwin, 105, 929, 1111, 3253.
 Henning, C. L., 2048.
 Henny, Gerhard, 2609.
 Herbing, Johannes, 2460.
 Hergenreder, J., 207.
 Heritsch, Franz, 161, 162, 163, 356, 357, 358, 359, 359a, 3092.
 Hermann, Paul, 2500.
 Hermitte, E., 271, 272, 727, 727a.
 Hernández-Pacheco, Eduardo, 2511.
 Herrmann, O., 555.
 Hess, Eva, 2684a.
 Hess, F. L., 587a, 1096, 2684, 2684a, 2685, 2727.
 Hess, Hans, 1295.
 Heusler, Conrad, 727b.
 Hewett, D. F., 1642a, 1643, 2158a, 2909.
 Hewitt, W., 1029.
 Hezner, L., 995.
 Hickling, George, 2418.
 Hicks, W. B., 2212.
 Hilber, V., 360.
 Hilgard, E. W., 3131.
 Hill, J. B., 1022a, 1030, 2418a.
 Hill, J. M., 404, 770, 1735, 1736, 1840.
 Hill, R. T., 3079.
 Hill, William, 1035.
 Hilsenbeck, A., 24, 25.
 Himmelbauer, Alfred, 1760.
 Hinds, Henry, 1774.
 Hindshaw, H. H., 2113.
 Hintze, F. F., *jr.*, 2785, 2908.
 Hinxman, L. W., 2418b.
 Hitchcock, C. H., 3063, 3154.
 Hlawatsch, C., 1455, 2815.
 Hobbs, W. H., 957, 1088a, 1296.
 Höfer von Heimhalt, Hans, 1088b.
 Högbom, A. G., 1004, 1094, 2547, 2548, 2549, 2550, 2551, 2552.
 Högbom, Bertil, 1075.
 Hoehne, Erich, 541.

- Hoernes, R., 958, 959, 960, 3025.
Hoffman, Bruno, 988.
Hoffmann, C., 199.
Hoffmann, Guido, 1112.
Hofman, H. O., 2974.
Hogben, G., 961.
Hohenstein, Victor, 392.
Holden, E. S., 961a.
Holland, T. H., 842, 1416, 1723, 2954.
Holland, W. J., 2757.
Holm, Gerhard, 3138.
Holmes, Arthur, 2144a.
Holmes, T. V., 1031.
Holmquist, P. J., 1559, 2553, 2554.
Holmsen, Gunnar, 1971.
Holst, N. O., 1032.
Holtz, H. C., 2175.
Hommey, J., 1179.
Hopkins, L. L., 2382.
Hopkins, O. B., 315.
Hopkins, P. E., 2020, 2025.
Hopkins, T. C., 1427, 1894a, 2040, 2130.
Hopkinson, John, 1033.
Hore, R. E., 2026.
Horn, Erich, 215.
Horn, M. G. W., 2609a.
Horne, John, 2418c, 2424, 2944, 3051, 3165.
Hornor, R. R., 2057.
Horton, F. W., 1799.
Horwitz, L., 2867.
Horwood, A. R., 1335.
Hoskin, A. J., 795.
Hotz, W., 2447.
Hovey, E. O., 2868, 3047, 3095.
Hovey, H. C., 645, 3069.
Howchin, Walter, 339, 1141, 2481.
Howe, Ernest, 776, 2294.
Howe, J. A., 556, 1538.
Howe, J. L., 2175.
Howell, J. V., 786, 1437.
Howitt, A. M., 2825a.
Hoyer, 2512.
Hoyt, J. C., 2862.
Hradil, Guido, 361.
Hubrecht, P. F., 674.
Huels, F. W., 2114.
Huene, F. H., von, 492, 930, 931, 932, 2303, 2609b, 3121.
Huerta, Santiago de la, 882a.
Hug, J., 2610.
Hug, Otto, 393.
Hughes, H. W., 759.
Hugi, E., 2930.
Hulth, J. M., 258, 3091.
Hume, W. F., 998, 1001, 1001a.
Hummel, K. L., 2610a.
Humphrey, W. A., 362, 2698, 2699, 2700, 2701, 2704.
Hunt, W. F., 2534.
Hunter, Stanley, 2826.
Huntington, Ellsworth, 1089, 2786.
Hupfeld, [Fr.] 363.
Hussak, Eugen, 2175a.
Hussakof, Louis, 1113, 3301.
Hyatt, Alpheus, 216, 665.
Hyde, J. E., 619.
Iddings, J. P., 2326, 3067, 3193.
Ihering, Hermann von, 272a, 3098.
Illing, V. C., 1034.
Imkeller, Hans, 164.
Ionescu-Argetoia, I. P., 2338.
Ippen, J. A., 364.
Irving, J. D., 787, 2049.
Issler, Alfred, 429.
Ivanov, A. O., 47.
Jaccard, Frédéric, 165, 166.
Jack, R. L., 248a, 2485.
Jackson, R. T., 989, 2943.
Jacob, Charles, 1428a.
Jaeger, F. M., 1760a.
Jaekel, O., 2732a.
Jaffé, Richard, 891.
Jaggar, T. A., jr., 1076, 2432, 2491.
Jaja, Goffredo, 1477.
Jamison, C. E., 2910, 2911.
Janensch, W., 2758.
Janin, Charles, 1306.
Jarvis, R. P., 2657a.
Jaworski, E., 1855, 2120, 2475.
Jeannet, Alph., 2611.
Jeffrey, E. C., 1548.
Jehu, T. J., 1552.
Jenkins, O. P., 291.
Jennings, Hennen, 1307.
Jensen, H. I., 2288.
Jillson, W. R., 728, 729, 1544, 1545.
Jiménez, Germán, 2793.
Jørgensen, S. M., 905.
Johannsen, Albert, 2327.
Johnson, B. L., 117, 1967.
Johnson, D. W., 1271, 1730, 2444a.
Johnson, H. R., 573.
Johnson, Thomas, 917.
Johnston, A. W., 1768.
Johnston, John, 1695a.
Johnston, W. A., 619, 2027, 2028.
Johnston-Lavis, H. J., 2845.
Joksimowitsch, Z. J., 1586.
Joleaud, Léonce, 140.
Joly, Henry, 453, 1180.
Jones, F. Wood-, *see* Wood-Jones, F.
Jones, O. M., 788.
Jones, T. R., 2387.
Jongmans, W. J., 15, 630, 2067.
Jonker, H. G., 1835.
Joseph, P. E., 251, 316, 1450, 1644, 1800, 2791, 2918.
Joukowsky, E., 1180a.
Jourdy, 2983, 3027.
Judd, J. W., 3249.
Jukes-Browne, A. J., 1035, 1066.
Julien, A. A., 922.
Jungbluth, F. A., 2663.
Junghann, H., 1381.
Junner, N. R., 2827.
Jutson, J. T., 2870, 2875.

- Kain, S. W., 1849.
 Kaiser, Erich, 1276, 2241.
 Kalecsinsky, Sandor, 1381a.
 Kalickij, K., 679, 2358, 2359.
 Kallhardt, Friedrich, 2242.
 Karajian, H. A., 304, 305.
 Karakasch, N. J., 2360.
 Karpinsky, A., 47, 135.
 Katz, F. J., 17.
 Katzer, Friedrich, 511, 512.
 Kaunhowen, F., 1230, 3202, 3274.
 Kautsky, F., 2902.
 Kay, G. F., 1347.
 Kayser, Emmanuel, 1239.
 Keele, Joseph, 619, 698.
 Keidel, J., 273.
 Keilhack, K., 1277.
 Keller, W. A., 2612.
 Kemmerling, G. L. L., 2612a.
 Kemp, J. F., 811, 1301, 1895, 1896, 1897, 2050, 2176, 3102, 3113, 3219, 3299.
 Kendall, P. F., 1036.
 Kennard, A. S., 1786.
 Kerforne, Fernand, 1181.
 Kerner, Fritz, 3114.
 Kerr, J. G., 3178.
 Kessler, Paul, 200, 201.
 Kew, W. S. W., 990.
 Keyes, C. R., 730, 1437a, 1775, 2965, 3115.
 Kharajian, H. A., *see* Karajian, H. A.
 Kilian, W., 167, 666, 854a, 1182, 1183, 1184, 2948, 3065.
 Kindle, E. M., 1427a, 3126.
 King, H. D., 2989.
 Kingsley, J. S., 2716.
 Kinkelin, F., 3212.
 Kirchberger, Margarete, 2243.
 Kirchner, W. C. G., 789, 1770.
 Kirk, Edwin, 588.
 Kirste, Ernst, 1330, 2244.
 Kissling, Alfred, 202.
 Kitchen, F. L., 1433.
 Kithil, K. L., 1806.
 Kitson, A. E., 2823, 2828.
 Kittl, Ernst, 484, 1787.
 Kittl, Erwin, 365, 366.
 Klebelsberg, R. v., 217, 367, 1002.
 Klein, C., 237, 1569.
 Kleinfeldt, Ernst, 1369.
 Klem, M. J., 991.
 Klemm, G., 1372a, 3134.
 Klinckowstroem, C. L. F. O., 938a.
 Knauer, Joseph, 430.
 Knibbs, G. H., 1222.
 Knight, C. W., 2029.
 Kniker, H. T., 2121.
 Knipe, H. R., 1083.
 Knopf, Adolf, 17, 122, 588, 1813, 1841, 2686.
 Knowlton, F. H., 657, 790, 854, 3148.
 Knox, Alexander, 106.
 Kober, L., 168, 317.
 Koch, Lange, 1342.
 Koeberlin, F. R., 1898.
 Köhler, W., 1274.
 Koehne, Werner, 431, 432, 433.
 Koenigsberger, J., 2613.
 Koert, W., 107, 3235.
 Koken, E., 2994.
 Kolb, Rudolf, 2520.
 Kolderup, C. F., 1972, 1973.
 Komorowicz, Maurice von, 336, 962.
 Koniouchebsky, L., 2361.
 Koroniewicz, P., 2191.
 Kossmat, Franz, 2390a, 2940.
 Kräusel, R., 1155.
 Kraft, Ph., 1588.
 Krahmann, Max, 37.
 Kraiss, Alfred, 2882.
 Kranz, W., 906, 2320.
 Krasnopolsky, A., 2362, 2363, 2364, 2365.
 Krasser, Carl, 1515.
 Krasser, Fridolin, 368.
 Kraus, E. H., 1749.
 Krause, P. G., 3213.
 Krebs, Norbert, 369.
 Kremmer, M., 2245.
 Krenkel, E., 108, 977, 978, 2391.
 Krištafović, N., 12, 3010, 3278.
 Kruizinga, Pieter, 2433.
 Krumbeck, Lothar, 493.
 Krümmer, Adolf, 2652.
 Krusch, P., 2044, 2045, 2050a, 3175, 3291.
 Kryštofovich, A., 855, 2067a.
 Kuiper, W. N., 2060a.
 Kümmel, H. B., 703, 1861.
 Kumm, August, 1287.
 Künne, G., 2264.
 Kunz, G. F., 3034, 3075, 3085.
 Kynaston, H., 2418d, 2702, 2703, 2704, 2705.
 Lacroix, Alfred, 1223, 1750, 2124, 2995, 3008, 3124, 3136.
 La Croix, M. F., 1444.
 Ladd, G. E., 699.
 Ladoo, R. B., 1395, 2725.
 Lagally, Max, 153.
 Lagotala, Henri, 2614.
 Lahee, F. H., 1251.
 Laitakari, Aarne, 1100a.
 Lambe, L. M., 933, 1114, 2807.
 Lambert, J., 3050, 3143.
 Lambert, L., 992.
 Lamothe, L. de, 2984.
 Lamplugh, G. W., 1037, 1037a, 1037b, 1440.
 Lane, A. C., 1728, 1728a, 2030, 2998.
 Laney, F. B., 1964, 1965.
 Lang, W. D., 1038, 2201.
 Lanzi, L., 1503.
 Lapparent, A. A. C. de, 1252, 2997.
 Larbalétrier, Albert, 2377a.
 La Rue, E. C., 801.
 Laspeyres, H., 2246.
 Lasswitz, Rudolf, 218.
 La Touche, T. H. D., 1417.
 Lauby, Ant., 1185, 1186.
 Launay, L. de, 471, 2395, 3136.
 Laurent, Louis, 1187.
 Laus, Heinrich, 892, 893.

- Lauterbach, Wilhelm, 1835a.
 Lavis, H. J. Johnston-, *see* Johnston-Lavis, H. J.
 Lawson, A. C., 589.
 Lazarevic, M., 1302.
 Lazzarini, A., 646.
 Leach, W. W., 619.
 Lebedew, N., 826.
 Lebling, Clemens, 169, 370.
 Leche, Wilhelm, 1605.
 Le Conte, Joseph, 2996, 3131.
 Lee, C. H., 586.
 Lee, G. W., 2419, 2711.
 Lee, W. T., 731, 736, 790, 1865.
 Lees, J. H., 732, 2115, 2304.
 Leffingwell, E. de K., 121, 1345.
 Legally, Max, 153.
 Lehmann, Vlad., 3192.
 Lehmann-Nitsche, Robert, 274.
 Lehner, Ernst, 2615.
 Leighton, Henry, 704, 1353, 1899.
 Leighton, M. M., 2858.
 Leitch, C. M., 3220.
 Leith, C. K., 1694, 1769, 2220, 2222, 2329, 2774, 2787, 3285.
 Leitmeier, Hans, 347.
 Lemoine, *Madame* Paul, 827.
 Lemoine, Paul, 109, 963, 1144, 1188, 1584, 1585, 3136.
 Leontievskij, N., 55.
 Leppla, A., 3062, 3212.
 Lepsius, Richard, 1278.
 Leriche, Maurice, 1115, 1116, 1189.
 LeRoy, O. E., 532, 533.
 Leslie, T. N., 2470.
 Lessing, F. Loewinson-, *see* Loewinson-Lessing, F.
 Leuchs, Kurt, 318, 319, 687.
 Levat, E. D., 1220.
 Leverett, Frank, 1438, 1553, 1729, 1729a, 1999, 2180.
 Levillier, Robert, 727a.
 Lévy, A. Michel, 1190, 1191, 3104.
 Lewiński, Jan., 2192.
 Lewis, J. V., 843, 845, 1861.
 Libert, Joseph, 3246.
 Liebenam, W. A., 2471.
 Liebheim, E., 203.
 Liebscher, Bruno, 2391a.
 Liénard, A., 3201.
 Lienenklaus, E., 2061.
 Liffa, Aurel, 1378.
 Linck, G., 2434.
 Lindeman, E., 620.
 Lindemann, Bernhard, 875.
 Linder, Hermann, 2184.
 Lindgren, Waldemar, 292, 589a, 590, 791, 881, 1401a, 1842, 1866, 2051.
 Linstow, O. v., 241, 327, 1279, 1357, 1566, 2247, 3291.
 Lioy, Paolo, 1489.
 Lisboa, M. A. R., 513.
 Lisson, C. I., 2140, 2141.
 Little, H. P., 1658.
 Little, J. E., 882.
 Livingston, D. C., 1407.
 Llarena, Joaquin Gómez de, *see* Gómez de Llarena, Joaquin.
 Lloyd, E. R., 17, 2498.
 Llucca, Federico Gómez, *see* Gómez Llucca, Federico.
 Lobeck, A. K., 1876.
 Łóczy, Ludwig von, 219, 1382.
 Lörenthey, Emerich, 1383.
 Loesch, K. C. von, 371, 434, 1827.
 Löwe, Fritz, 1358.
 Loewinson-Lessing, F., 640, 2144b, 3133.
 Logan, W. N., 1427a.
 Lohest, Max, 453a, 454.
 Lohmann, Wilhelm, 2883.
 Longchambon, Michel, 2265, 2330.
 Lord, N. W., 733.
 Lorenz, Th., 170.
 Lorenzo, G. de, 2936.
 Loric, J., 455, 456.
 Lotz, H., 2501.
 Loughlin, G. F., 17, 792, 2783.
 Lozinski, W. v., 2846.
 Lubbock, Sir John, *see* Avebury, J. L. Baron.
 Lüthy, Jakob, 2142.
 Lugeon, Maurice, 171, 1192, 1193, 2525, 2963, 3144a, 3213a.
 Lull, R. S., 673, 804, 805, 934, 1135, 2808, 2809.
 Lumb, A. D., 2177.
 Lumbier, M. M., 964, 965.
 Lundbohm, H., 1560.
 Lundquist, G., 2255, 2555.
 Lupton, C. T., 755.
 Luquer, L. McI., 3172a.
 Luther, D. D., 1878, 1900.
 Luttrell, Estelle, 293.
 Lyddaker, R., 2810.
 Lyons, H. G., 1959.
 Maas, Otto, 1683, 1684.
 MacAlister, D. A., 1030.
 MacBoyle, Errol, 591, 592, 593.
 McCallie, S. W., 1744.
 McCaskey, H. D., 1687, 1740.
 McConnell, R. G., 534, 619.
 McCourt, W. E., 2116.
 McGee, E. R., 3148.
 McGill, J. T., 3227.
 McGregor, J. H., 866, 2305.
 Macgregor, M., 2420.
 Mackenzie, G. C., 2031.
 MacKenzie, J. D., 535.
 McLaughlin, R. P., 594.
 Maclean, A., 619.
 Macnair, Peter, 2421, 2422.
 Madsen, Victor, 911, 2404.
 Magnus, H. C., 94.
 Maitland, A. G., 2876.
 Malcolm, Wyatt, 621, 1582, 1983.
 Manasse, Ernesto, 2923.
 Mansfield, G. R., 1402, 1675, 2157.
 Marden, J. W., 2922.

- Margerie, E. de, 1194, 1254, 2169a.
 Marguerit, G. Faure-, *see* Faure-Marguerit, G.
 Marshall, P., 1929, 1930, 1995.
 Marstrander, Rolf, 2777.
 Martel, E. A., 645, 646a, 1396, 2753.
 Martin, G. C., 734, 1657, 1659.
 Martin, K., 1507, 1508, 2759.
 Martin, Lawrence, 126, 619, 2894, 3262.
 Martonne, Emmanuel de, 172.
 Marty, Pierre, 1167, 1195.
 Matchatschek, Fritz, 173.
 Mather, K. F., 1549.
 Mathews, E. B., 557, 1660.
 Matley, C. A., 1039.
 Matosch, Anton, 28.
 Matson, G. C., 1546, 2158.
 Matte, H., 1196.
 Matteucci, R. V., 2821.
 Matthew, G. F., 3054.
 Matthew, W. D., 935, 1606, 1607, 1612.
 Mawson, D., 681, 1857, 2482.
 Mayer, Franz, 435.
 Mayet, Lucien, 1608.
 Mead, W. J., 1694a.
 Meigen, W., 1564.
 Meinzer, O. E., 2754.
 Meli, Romolo, 966, 1478, 1479, 3268, 3280.
 Mellor, E. T., 2705, 2706, 2707, 2708.
 Mendenhall, W. C., 595.
 Mengaud, Louis, 2512a.
 Menzel, Hans, 3120, 3145.
 Menzel, Paul, 2581.
 Mercanton, P. L., 1294.
 Merle, Ant., 1196a.
 Merriam, C. H., 466.
 Merriam, J. C., 1399, 2058, 2306.
 Merrill, F. J. H., 596.
 Merrill, G. P., 557, 1751, 3221.
 Merwin, H. E., 2445, 2796.
 Merz, Alfred, 96.
 Métin, Albert, 536.
 Meunier, Fernand, 1430.
 Meyer, Erich, 1197, 2884.
 Meyer, H. L. F., 476, 1280.
 Meyers, G. H., 2017.
 Michael, R., 2193, 2194.
 Michel, H., 1699.
 Michel, L., 3107.
 Michels, 1960.
 Middleton, Jefferson, 1224.
 Miklaszewski, S., 2195.
 Milch, L., 876, 2173, 3222.
 Miller, A. M., 1547.
 Miller, B. L., 1324, 1325, 1661, 1961, 1963, 2476, 2832.
 Miller, L. H., 464.
 Miller, W. J., 95, 1901.
 Milne, John, 967.
 Milthers, V., 901, 908.
 Mironoff, S., 2366.
 Miser, H. D., 301.
 Mitchell, Sir Arthur, 2422a.
 Moberg, J. C., 608, 2556, 2557.
 Moderni, P., 1480.
 Moffit, F. H., 17, 122.
 Molengraaff, G. A. F., 1836, 2709.
 Monckton, H. W., 1973.
 Montessus de Ballore, F., 968, 968a, 3171.
 Moodie, R. L., 415, 416, 416a.
 Mook, C. C., 1516, 2388.
 Morand, Mandeleine, 1198.
 Mordziol, C., 2248, 2885.
 Morgan, P. G., 691, 735, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1938a.
 Morozewicz, J., 1384.
 Morrison, M., 1874.
 Morse, W. C., 631.
 Mortillet, Paul, 3172.
 Moscheles, J., 816, 2396.
 Moses, A. J., 1752, 3020.
 Motas, Const., 2339.
 Moulin, H., 2582.
 Murlon, M., 4, 1255.
 Mrazec, L., 877, 2377b.
 Muck, Joseph, 2006a.
 Mühlberg, F., 2616a.
 Mühlberg, Max, 1511c, 3174.
 Müller, F. P., 1481.
 Müller, F. T., 1199.
 Müller, Hermann, 2392.
 Münchsdorfer, Franz, 436, 2007.
 Munn, M. J., 2131.
 Munoz Lumbier, M., *see* Lumbier, M. M.
 Munthe, Henr., 2558, 2559, 2560.
 Muret, E., 1294.
 Murgoci, G., 2340, 2341.
 Murphy, E. C., 1128.
 Myers, G. H., 2017.
 Namias, I., 2062.
 Nathorst, A. G., 918, 2077, 2181, 2517, 2561, 2562, 3139.
 Naumann, Einar, 1450a.
 Nelson, Aven, 3119.
 Nelson, Helge, 2563.
 Netschajew, A. W., 494.
 Neumann, Joh., 894.
 Neviani, A., 78, 550, 551.
 Newberry, J. S., 1108.
 Newbigin, M. I., 3051.
 Newell, F. H., 1454.
 Newland, D. H., 1353, 1902, 1903, 1904.
 Newsom, J. F., 694, 2155a.
 Newton, E. T., 1117, 1609, 2760.
 Newton, R. B., 1594.
 Nicholas, F. J., 32.
 Nichols, H. W., 766.
 Nicholson, H. A., 2093.
 Nickles, J. M., 7, 522, 731, 736, 1997.
 Nicolai, Gerhard, 1974.
 Nicolau, Th., 1451.
 Nielsen, K. B., 862, 909.
 Niemi, Signa, 1769a.
 Niggli, Paul, 1695, 1695a, 1747, 2617.
 Nikitin, S., 2366a.
 Nikitin, V., 2367.
 Nikolaiew, D., 2368.

- Nitsche, Robert Lehmann-, *see* Lehmann-Nitsche, Robert.
 Noble, L. F., 294, 1313.
 Noetling, Fritz, 1418.
 Nomland, J. O., 597.
 Nopsca, F. *Baron*, 130, 131, 936, 1385, 1541, 2307.
 Nordenskjöld, Otto, 247.
 Nordmann, V., 1244, 1610.
 Norton, H. B., 1287a.
 Norton, W. H., 308.
 Novarese, V., 1326, 1482.
 Nowak, Ernst, 472.
 Nüesch, Jakob, 1637.
 Oberhummer, Eugen, 174, 175.
 Obermaier, Hugo, 2512b, 2512c, 2512d.
 O'Connell, Marjorie, 220, 1080, 2521.
 Oddone, Emilio, 969, 970, 1270.
 Odenbach, F. J., 971.
 Odendall, Leonhard, 812.
 Odhner, Nils, 1788.
 O'Donnell, Gretchen, 2859.
 Oertel, Walter, 1199a, 1359.
 Offermann, Johanna, 1846.
 O'Harra, C. C., 1662, 2492, 2493, 2494, 2495.
 Oldham, R. D., 972.
 Olin, E., 2564.
 Olivecrona, Helmer, 2565.
 Oliveira, Euzebio Paulo de, *see* Paulo de Oliveira, Euzebio.
 Olry, A., 1200.
 Olsson-Seffer, Pehr, 2435, 2436.
 O'Neill, J. J., 2278.
 Ongley, M., 1928.
 Oppenheim, Paul, 324.
 Oppenheimer, Josef, 1517.
 Oppliger, Fritz, 2522, 2523.
 Ordoñez, Ezequiel, 1715, 2976.
 Ortega, Pablo, 882a.
 Ortmann, A. E., 1434.
 Orzi, D., 1483.
 Osann, A., 2328.
 Osborn, H. F., 937, 1084, 1611, 1612, 1613, 1614, 1637a, 2084, 2182, 2228, 2316, 2317, 2388, 2653, 2654, 2761, 2762, 3132, 3190.
 Osburn, R. C., 2811.
 Osimo, Giuseppina, 1145, 1146.
 Ospina, Tulio, 767.
 Osten-Sacken, O. B. von der, 1571.
 Oswald, Felix, 306.
 Otockij, P., 67.
 Ovitz, F. K., 764.
 Oxaal, John, 1317, 1975.
 Øyen, P. A., 1976.
 Pacchioni, Alberto, 951a.
 Pacheco, Eduardo Hernández-, *see* Hernández-Pacheco, Eduardo.
 Pack, R. W., 598.
 Paackelmann, W., 1281.
 Paige, Sidney, 17.
 Palache, Charles, 565, 2229.
 Pálffy, Moritz v., 2342.
 Pan, Ismael del, 1614a.
 Pannekoek, J. J., 946, 2618.
 Pantanelli, D., 3036.
 Papavasiliou, S. A., 1007.
 Papp, Karl von, 1382.
 Paquier, V., 1201.
 Pardee, J. T., 2158a.
 Parisch, Clelia, 221.
 Park, James, 1256.
 Parker, E. W., 737, 765.
 Parkinson, John, 109.
 Parks, E. M., 2498.
 Parks, James, 1939, 1940, 1941, 1942.
 Parks, W. A., 619, 2032, 2528, 2529.
 Parona, C. F., 1484, 1485, 2334, 2936, 3030, 3184.
 Parsons, A. L., 619, 1354, 1653a, 2117.
 Parsons, C. L., 1752.
 Pascoe, E. H., 561, 1419, 1420.
 Pasquier, Leon du, 1294.
 Pastore, Franco, 275.
 Patterson, John, 74.
 Patton, H. B., 793, 794, 795, 1796.
 Paulcke, W., 2477.
 Paulo de Oliveira, Euzebio, 513a, 738.
 Pavlor, A. P., 331.
 Pavlow, Marie, 1615, 1616.
 Peach, B. N., 2423, 2424, 2424a, 2424b, 2425a.
 Peale, A. C., 1745.
 Pearce, J. N., 1347.
 Pearson, R., 2008.
 Peetz, H. v., 2369.
 Pelourde, Fernand, 2067b.
 Pelz, Alfred, 2393.
 Penck, Albrecht, 176.
 Penck, Walther, 276, 277, 324a.
 Penfield, S. L., 1753.
 Pengelly, Hester, 3194.
 Penhallow, D. P., 622.
 Penrose, R. A. F., *jr.*, 2966, 3043.
 Perkins, G. H., 675, 2797, 2798, 3240, 3271.
 Perregaux, J. de, 84.
 Pervinquière, L., 667, 1231, 2733a, 3275.
 Peterson, O. A., 2757, 2763, 2764.
 Pethö, Julius, 1789.
 Petković, V. K., 396a.
 Petrascheck, Wilhelm, 222.
 Pettke, C. R., 1298.
 Peyer, B., 1124, 3232a.
 Pfaff, F. W., 437.
 Phalen, W. C., 405, 420, 739, 1737, 2159, 2160, 2215, 2216, 2378, 2379.
 Philipp, Hans, 372.
 Philippi, E., 223.
 Philippon, A., 325.
 Phillips, W. B., 740.
 Pia, Julius v., 136, 373, 667a, 1828.
 Piaz, G. Dal, *see* Dal Piaz, G.
 Pieragnoli, L., 2811a.
 Pilgrim, G. E., 2135.
 Piltz, Ernst, 2675.
 Piperoff, Chr., 2619.
 Pirie, J. H. H., 248.

- Pirsson, L. V., 1753, 1814, 2144c, 2996, 3193.
 Pipersky, I. M., 83.
 Pittman, E. F., 340, 1872.
 Pjeturss, H., 1397.
 Playfair, R. L., 142.
 Pockels, F., 973.
 Pogue, J. E., jr., 1006, 1966, 2735.
 Polénoff, B., 2448, 2449.
 Pompeckj, J. F., 123, 331a, 2717, 2887, 3044, 3120, 3223.
 Pontier, G., 2765.
 Pontoppidan, Harald, 177.
 Popescu-Voitești, I., 3257.
 Popovici, V., 2343.
 Popovici-Hatzeg, Valerius, 667b.
 Porter, J. B., 741.
 Posch, A., 1511.
 Posewitz, Theodor, 1386.
 Post, Lennart von, 1819, 2566.
 Potonié, H., 632.
 Pratt, J. H., 844, 845, 3093.
 Preda, D. M., 2344.
 Preiss, Cornelius, 410.
 Preiswerk, H., 178, 183, 2399, 2630.
 Prestwich, G. A. M., 3204.
 Preumont, G. F. J., 448.
 Prever, P. L., 1487.
 Prever, Pietro, 1991.
 Priem, F., 1201a.
 Prinz, Gyula, 1387.
 Prior, G. T., 2319.
 Pritchard, G. B., 1105.
 Procházka, V. J., 473.
 Prosser, C. S., 1662a.
 Prosser, M. W., 1998.
 Prouty, W. F., 1652, 2323.
 Prusevic, A., 2742, 2743.
 Pruvost, Pierre, 1201b.
 Puffer, Lorenz, 374.
 Pugh, G. T., 2487.
 Puig y Larraz, G., 2513.
 Purdue, A. H., 2658.
 Purington, C. W., 124.
 Quackenbush, L. S., 1617.
 Quensel, P. D., 2102.
 R., S. H., 3287.
 Rabot, Charles, 1294, 1297.
 Rabowski, F., 2620.
 Raefler, Friedrich, 2461.
 Ramann, E., 2437.
 Ramond, G., 1202.
 Ramsay, Wilhelm, 1101, 1103.
 Randall, D. T., 742.
 Range, Paul, 2502, 2503.
 Ransome, F. L., 295, 296, 297, 791, 797, 798, 1843, 1844, 1845.
 Rassmuss, H., 179, 1487a, 1561.
 Rastall, R. H., 2728.
 Rauff, H., 2202.
 Ravn, J. P. J., 910, 1343, 1344.
 Raymond, P. E., 619, 982, 2041a, 2042, 2717a, 2717b, 2718.
 Raymond, R. W., 2052, 2953, 3116.
 Raymond, W. J., 2988.
 Read, T. T., 688.
 Reagan, A. B., 1288.
 Reboul, P., 666.
 Reck, H., 1398.
 Reclus, Elisée, 2847.
 Redfield, A. H., 2536.
 Redlich, K. A., 375, 1421, 1589.
 Redwood, Sir B., 2009.
 Reed, F. R. C., 1040, 1441, 2097.
 Regineck, Hans, 2153.
 Regny, P. Vinassa de, *see* Vinasse de Regny, P.
 Rehbinder, B. v., 1790, 2196, 2197.
 Reichenbach, Ernst Stromer v., *see* Stromer v. Reichenbach, Ernst.
 Reid, A. M., 2647.
 Reid, Clement, 1041, 1041a, 1041b, 2188.
 Reid, Eleanor, M., 1041, 2188.
 Reid, H. F., 1294.
 Reinecke, Leopold, 537, 623.
 Reinhard, A. L., 1289b.
 Reinhard, Max, 599.
 Reinhold, Th., 1488.
 Reininger, Heinrich, 376.
 Reis, O. M., 438.
 Reiter, H. H., 1761.
 Renier, Armand, 450, 457, 457a, 458, 459, 2253, 2256, 2257, 3066.
 Renz, Carl, 1338, 1339.
 Repelin, J., 1791, 3286.
 Reusch, Hans, 1977, 1978.
 Reuter, Robert, 2734.
 Révil, J., 167, 1184, 1203, 2948.
 Reynell, A., 40.
 Reynolds, S. H., 1618, 1619, 1620, 1621.
 Riabinin, A., 2185, 2450, 2451.
 Rice, G. S., 757, 758.
 Rich, M. N., 2922.
 Richards, R. W., 755, 1402.
 Richardson, C. H., 558, 1299, 2799, 2800.
 Richardson, G. B., 2670.
 Richardson, L., 2972, 3273.
 Richarz, P. S., 1856.
 Richter, E., 1294.
 Richter, Johannes, 1622.
 Richter, R., 828, 1581, 2718a.
 Ries, Heinrich, 559, 672, 700, 701, 702, 703, 704, 1257, 1258, 1905, 2117a, 2985, 3299.
 Rimann, Eberhard, 278, 895, 2504.
 Rinne, E., 2958.
 Rinne, F., 2217, 2917.
 Ripley, H. E., 3190.
 Rispoli, G. Checchia, *see* Checchia-Rispoli, G.
 Ritter, Étienne, 1204.
 Rive, L. De la, *see* De la Rive, L.
 Robertson, C. T., 1748b.
 Roccati, Alessandro, 1422.
 Rösler, H., 1539.
 Roesler, Max, 883.
 Rogers, A. F., 566, 870, 1534.
 Rogers, A. W., 626.
 Rogers, W. R., 66, 66a.

- Rohon, J. V., 1118.
 Roig, M. S., 884, 885.
 Rollier, Louis, 495, 1511d, 2621, 2621a.
 Roman, Frédéric, 1205, 1206.
 Romanowsky, E. O., 2928.
 Romer, E., 2198.
 Ronaldson, J. H., 743.
 Ronchadzé, Jean, 224.
 Rørdam, K., 1237a, 3111.
 Rosati, Aristide, 3260.
 Rosenberg, Paul, 668.
 Rosenbusch, H., 2145.
 Rosenkrantz, Alfred, 496.
 Ross, C. P., 881.
 Roundy, P. V., 1232.
 Roux, C., 1207.
 Rovereto, G., 243, 279.
 Rowe, J. P., 744, 1815.
 Rozlozsnik, Paul, 400, 1389.
 Rubel, A. C., 745, 2729.
 Rudnyekyj, Stephan, 377.
 Rudolph, E., 2848.
 Rueb, Jan, 2686a.
 Rübenstrunk, Ernst, 1557.
 Ruedemann, Rudolf, 669, 670, 1331, 1332, 1897, 1906, 2718b.
 Rumbold, W. G., 692.
 Rumor, Sebastiano, 1489.
 Runner, J. J., 2730.
 Russell, I. C., 309, 3196.
 Russell, L. E., 17.

 S., A., 3088.
 Sabatini, V., 1490.
 Sabot, R., 2123, 2848a.
 Sacco, Federico, 180, 974, 1147, 1491, 1492, 1493, 1494, 1494a, 1495, 2932, 3157.
 Sagastume, C. A., 267.
 Sahni, Birbal, 1424, 2289.
 Saint-Smith, E. C., 2876a.
 Salée, Achille, 829, 830.
 Salfeld, Hans, 225, 1518, 1519.
 Salomon, Wilhelm, 181, 2321, 2400, 3217.
 Salzmann, W., 746.
 Samoilov, I. V., 2160a.
 Sampson, F. A., 975.
 Sandberg, C. G. S., 1696, 2622.
 Sandegren, R., 2567.
 Sander, Bruno, 378.
 Sandkühler, Beda, 1996.
 Santillán, Rafael Aguilar y, *see* Aguilar y Santillán Rafael.
 Sapper, Carl, 658, 1346, 2849.
 Sarasin, Ch., 226, 2623, 2624, 2625, 3143.
 Satterly, John, 1746.
 Savigar, G., 3153.
 Savornin, J., 143.
 Sayles, R. W., 2438.
 Scacchi, E., 3042.
 Schaad, Ernst, 2626.
 Schadler, Josef, 3101.
 Schafarzick, Franz, 560.
 Schaffer, F. X., 379, 1771.
 Schalch, Ferdinand, 2812, 3222.

 Schaller, W. T., 943, 1096, 1574, 2292, 2332, 2406, 2673, 2674.
 Schardt, H., 2626a, 2626b, 2627.
 Scharff, R. F., 2085, 2086.
 Schellwien, Ernst, 1148.
 Scheuring, G., 923.
 Schiebold, Ernst, 567.
 Schiller, Walther, 477, 2628.
 Schilling, Johannes, 1755.
 Schlagintweit, Otto, 182, 2143.
 Schlosser, Max, 2514.
 Schlunck, Johannes, 1520.
 Schmeckebeier, L. F., 88.
 Schmid, H. S. de, 1092, 1724.
 Schmidt, C., 183, 1511e, 2629, 2630, 3065a, 3185.
 Schmidt, H., 2264.
 Schmidt, Martin, 1521.
 Schmidt, R. R., 1282.
 Schmierer, Theodor, 1522.
 Schmitt, Joseph, 249.
 Schnaebele, Ernst, 204.
 Schneid, Theodor, 227, 439.
 Schnider, Rudolf, 2631.
 Schöndelmayer, Ch., 226.
 Schöndorf, Fr., 983, 984.
 Schöppe, W., 1372b.
 Schofield, S. J., 17, 538, 539.
 Scholz, Erich, 1360.
 Schottler, Wilhelm, 411.
 Schrader, F. C., 125, 298.
 Schreiber, F., 747.
 Schreiber, Henrico, 2641.
 Schröter, Zoltan, 2526.
 Schröter, C., 2111.
 Schubert, R. J., 1119.
 Schubert, Richard, 397.
 Schuchert, Charles, 327a, 2087, 2934, 2943, 3072.
 Schuh, Fr., 2631a.
 Schütze, Ewald, 1283, 1284.
 Schulthess, Betty, 1623.
 Schultz, A. R., 144.
 Schulz, August, 1245.
 Schulze, Erwin, 1366.
 Schumacher, Reinhold, 2719.
 Schwantke, Arthur, 1756.
 Schwarz, E. H. L., 34, 2850.
 Schwarz, Hugo, 417.
 Schweer, Walther, 2009b.
 Schwenkel, Hans, 394.
 Schwinner, Robert, 184, 380.
 Scott, Alexander, 238, 1757.
 Scott, D. H., 1548.
 Scott, H. H., 1624.
 Scott, W. B., 1625, 1626, 1627, 2766, 3072.
 Schriener, J. B., 2103.
 Sears, J. H., 1676.
 Sederholm, J. J., 255, 256, 1095, 1102, 1103, 1303, 2274, 2331a.
 Seely, H. M., 2801, 2924.
 Seffer, Pehr Olsson-, *see* Olsson-Seffer, Pehr.
 Sefre, Ivar, 1376.
 Segerberg, C. O., 608.

- Seguenza, Luigi, 1120, 2813.
 Seidlitz, Wilfried von, 975a, 2852.
 Seitz, A. L. L., 2308.
 Sellards, E. H., 1130, 1131, 1638, 2161, 2814.
 Semmes, D. R., 2205.
 Semper, 1960.
 Semper, Erwin, 2345.
 Semper, M., 710, 1289c.
 Sernander, Rutger, 2078, 2568, 3200.
 Seward, A. C., 99, 633, 856, 857, 886, 1423, 1424, 1425, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 2068, 2069, 2070, 2258, 2259, 2472.
 Seymour, H. J., 1442.
 Shaler, M. K., 444.
 Shaler, N. S., 1854, 3243.
 Shattuck, G. B., 1663, 1664, 1665, 1666, 1667, 1792.
 Shaw, E. W., 1549.
 Sheldon, J. M. A., 802.
 Sheppard, Thomas, 1042, 1043, 1044, 1044a, 1045, 1046, 1047, 1048, 1049, 2975, 3245a, 3247.
 Sherborn, C. D., 3244.
 Sherlock, R. L., 1050.
 Shimek, B., 2219, 2973.
 Shimer, H. W., 497, 1432, 1907, 2033, 2093a.
 Shipton, W. D., 941.
 Shore, T. W., 1051.
 Short, A. R., 1052.
 Sibly, T. F., 1370.
 Sichtermann, Paul, 2250.
 Šidlovskij, A. F., 2518.
 Siebenthal, C. E., 799, 2040, 2919, 2920.
 Sieberer, Karl, 1233.
 Siebs, August, 1361.
 Siegfried, Hans, 1628.
 Siemiradzki, Josef v., 228, 2744.
 Sievers, Wilhelm, 2478.
 Sigg, Henri, 1093, 1801.
 Sigmund, Alois, 381.
 Silvestri, A., 1149, 1150, 1151, 1496, 2230.
 Simionescu, Ion, 229.
 Simmersbach, Bruno, 2146.
 Simoens, G., 4.
 Simonds, F. W., 2671, 2672, 3071, 3218.
 Simonowitch, S., 641.
 Simpson, R. R., 713.
 Sinclair, W. J., 1629, 1630, 2058.
 Singewald, J. T., *jr.*, 17, 1961, 2476.
 Sion, Jules, 1208.
 Sjögren, Hj., 91.
 Skeat, E. G., 911.
 Skeats, E. W., 2829.
 Slate, Frederick, 3086.
 Slater, I. L., 806.
 Slavik, F., 1758.
 Slichter, C. S., 2755.
 Smith, Bernard, 1053, 1371.
 Smith, C. D., 1226.
 Smith, C. E., 796.
 Smith, E. A., 2921, 3086, 3128, 3144, 3146.
 Smith, E. C. Saint, *see* Saint-Smith, E. C.
 Smith, G. O., 1315, 1593.
 Smith, J. P., 600, 601, 665, 1309, 1435, 2172, 2714.
 Smith, W. D., 230, 2058a, 2152.
 Smith, W. S. T., 1550.
 Sobolew, D., 231.
 Soellner, J., 97.
 Soergel, W., 1631, 1798.
 Sokolow, N., 2370.
 Sollas, H. B. C., 2170.
 Sollas, W. J., 1121.
 Solovjev, M., 2452.
 Somers, R. E., 17.
 Sonntag, P., 2251.
 Soper, E. K., 2118.
 Sparr, Enrique, 279a.
 Speight, R., 1943, 1944.
 Spence, H. S., 1327, 2162.
 Spencer, J. W., 2532.
 Spencer, W. K., 328, 329.
 Spengler, E., 28, 382.
 Speyer, Carl, 831.
 Spitz, Albrecht, 1234, 2633.
 Springer, Frank, 863.
 Spulski, B., 642.
 Squinabol, S., 2291.
 Staff, Hans v., 185, 1390.
 Stahl, Alfred, 1366a, 1540, 2136.
 Stainier, Xavier, 143a, 460a, 1081.
 Stanfield, J., 619, 926.
 Stanton, T. W., 858, 2769, 3105, 3298.
 Stappenbeck, Richard, 280, 280a, 281, 282.
 Stark, M., 2147.
 Staub, Rudolf, 186, 187, 2634.
 Staub, Walther, 2635.
 Stauffer, C. R., 2034, 2479.
 Stearns, M. R., 3255.
 Stebinger, Eugene, 748.
 Steenhuis, J. F., 1837.
 Stefanescu, Sabba, 2346.
 Stefanini, G., 993, 1468, 1497a.
 Stefano, Giuseppe de, 1632, 2961.
 Stehlin, H. G., 1633, 3164.
 Steidtmann, Edward, 2221.
 Stella, A., 1498, 1499, 1500.
 Stelzner, A. W., 2053, 2686b.
 Stensiö, E. A., 1122.
 Stenzel, Gustav, 2099.
 Stephenson, L. W., 302, 859, 1967.
 Sterrett, D. B., 1725, 1807, 2223.
 Sterzel, J. T., 634.
 Steuer, A., 283.
 Steusloff, Ulrich, 1793.
 Stevenson, J. J., 749, 3069, 3135, 3227.
 Stewart, A. C., 1407.
 Stewart, C. A., 299.
 Stewart, J. S., 134.
 Stewart, P. C. A., 1716.
 Stickney, A. W., 813.
 Stille, Hans, 1285, 1362, 2886.
 Stobbs, J. T., 1054.
 Stoller, J., 1246, 1286, 2183.
 Stone, R. W., 750, 751, 1355, 1572, 2133, 2383.
 Stone, Witmer, 2966.

- Stopes, M. C., 239, 756, 860, 1850, 2071, 2072, 2073.
 Stopnevic, A. D., 2010.
 Strahan, Aubrey, 1055, 1056, 2855.
 Strangways, C. Fox-, *see* Fox-Strangways, C.
 Stremme, H., 1565.
 Stromer, Ernst, 676, 677, 1123, 1124, 2309, 2815, 2816, 3040.
 Stromer v. Reichenbach, Ernst, 1634, 2318.
 Strzelecki, Percy, 52, 53.
 Stuchlik, Heinrich, 440.
 Studer, Th., 1635, 3187a.
 Studt, F. E., 110.
 Stuntz, S. C., 2467.
 Stutzer, O., 924, 1562, 2569, 2940.
 Suess, Eduard, 2169, 2170.
 Summers, H. S., 1993, 2829.
 Sundelin, Uno, 2570, 2571.
 Suter, Hans, 2635a.
 Suter, Rudolf, 2636.
 Svedmark, Eugene, 2397.
 Sweeting, G. S., 46.
 Swidersky, B., 1801, 2637.
 Székány, Bela, 1391.
 Taber, Stephen, 2688, 2835.
 Taeger, Heinrich, 1392.
 Täuber, Antonio, 2088.
 Talbot, H. W. B., 2877.
 Tanasescu, I., 2347.
 Tanfiljew, G. I., 2453.
 Tanner, V., 1104.
 Tanton, T. L., 2280.
 Tarnuzzer, Chr., 2638, 2638a.
 Tarr, R. S., 126, 1259, 1260, 1908, 1909.
 Tarr, W. A., 406, 680.
 Taylor, C. H., 1318.
 Taylor, F. B., 619, 2180.
 Taylor, T. G., 254.
 Teall, J. J. H., 839, 2162a, 2425a.
 Tegengren, F. R., 1452, 1590, 1687a, 2572.
 Teller, E. E., 2895.
 Teppner, W. von, 1542, 1832, 2122.
 Termier, Pierre, 1218a, 2948, 3269.
 Tertsch, H., 880.
 Tesch, P., 1794, 1838, 2189.
 Thayer, W. N., 1717.
 Thevenin, Armand, 1219, 2163, 3049.
 Thiele, E. O., 2209b.
 Thiéry, P., 992.
 Thomas, H. H., 1057, 1530, 1531.
 Thomas, Ivor, 498, 499.
 Thompson, A. H., 3079.
 Thompson, Beeby, 1068.
 Thomson, J. A., 752, 1945, 1946, 1947, 2878.
 Thresh, J. C., 1067.
 Thresh, May, 1741b.
 Thwaites, F. T., 2895a.
 Thyng, F. W., 2817.
 Tiddeman, R. H., 1058.
 Tiessen, Ernst, 3216.
 Tietze, Emil, 3074, 3191.
 Tietze, O., 2164.
 Tight, W. G., 3084.
 Tikonowitch, M. N., 2174a.
 Tille, W., 753.
 Tillyard, R. J., 1431.
 Timkó, Emerich, 1378.
 Törnebohm, A. E., 2573.
 Toldo, Giov., 1501, 3232.
 Toll, Eduard von, 2454.
 Toll, I. M., 2644.
 Tolman, C. F., *jr.*, 2054.
 Tommasi, A., 1502.
 Torcelli, A. J., 2925.
 Tornau, F., 2199, 2646.
 Tornquist, A., 2252, 3117.
 Torres, J. L., 2143a.
 Toucas, Ar., 1795.
 Tough, F. B., 2011.
 Toulou, Franz, 232, 383, 398, 871.
 Trauth, Friedrich, 384, 832, 1152.
 Trechmann, C. T., 1059, 1948.
 Trench, J. B., 824.
 Tribolet, M. de., 3016a.
 Trickett, O., 1874a.
 Troedsson, Gustaf, 2574.
 Troll, Oskar *ritter* von, 385.
 Trotter, A., 310.
 Trouessart, E. L., 1635a, 1635b.
 Trout, L. E., 2017.
 Trowbridge, A. C., 1079.
 Troxell, E. L., 611.
 Trümpy, Daniel, 188.
 Trüstedt, Otto, 1104a.
 Trumbull, L. W., 2912, 2913.
 Trummer, E. Bülow v., *see* Bülow-Trummer, E. v.
 Tsytoivitch, Xenie de, 233.
 Tučan, Fran., 1572a.
 Tucker, W. B., 602.
 Turgeon, F. N., 2488.
 Tutkovskij, P., 2200.
 Twelveteers, W. H., 2647a, 2648, 2649, 2650, 2651.
 Twenhofel, W. H., 619, 1535, 1984.
 Twitchell, M. W., 981.
 Tyrrell, G. W., 1261.
 Uglow, W. L., 619, 1732.
 Ulrich, E. O., 1550.
 Umpleby, J. B., 17, 1403, 1404, 1405.
 Upham, Warren, 1290, 2275, 3090, 3306.
 Ussher, W. A. E., 1060, 1060a, 1060b.
 Ussing, N. V., 912.
 Uttley, G. H., 1949, 1950, 1951.
 Vacek, M., 386.
 Vacher, A., 3014.
 Van de Wiele, C., 189.
 Van Es, L. J. C., 947.
 Van Hise, C. R., 2222, 2774.
 Van Hoepen, E. C. N., 2575.
 Van Ingen, Gilbert, 303, 2645.
 Van Tuyl, F. M., 1238.
 Van Wagenen, H. R., 2731.
 Varley, Thomas, 1407.
 Vaughan, T. W., 833, 834, 835, 1579, 3288.

- Veatch, A. C., 1578, 1580, 2914.
 Verbeek, R. D. M., 208a, 948, 949, 950, 3029.
 Verloop, J. H., 950b.
 Verri, A., 1503.
 Verrill, A. E., 461, 462.
 Versluys, J., 2739.
 Veters, Hermann, 386a, 637.
 Viale, Clelia, 221.
 Vilaseca, Salvador, 2516.
 Villarello, J. D., 1718.
 Vinassa de Regny, P., 836, 1393, 1569a.
 Viola, C., 648, 1504.
 Visher, S. S., 2496.
 Vitális, István, 412.
 Vogdes, A. W., 603, 604, 605, 872, 3277, 3281.
 Vogt, J. H. L., 1979, 1979a, 2044, 2045.
 Vogt, Thorolf, 407.
 Voit, F. W., 925.
 Voitești, I. Popescu-, *see* Popescu-Voitești, I.
 Volz, Wilhelm, 2537.
 Vosseler, Paul, 2639.
 Waagen, Lukas, 813a, 1740a, 2169.
 Wagner, Georg, 441, 2531, 2767.
 Wagner, P., 1265, 1266, 1267, 1268, 1269.
 Wagner, P. A., 2505.
 Wagner, W., 205.
 Wagy, E. W., 2013.
 Wahnschaffe, Felix, 2992.
 Walcott, C. D., 320, 500, 501, 502, 609, 610
 689, 2720.
 Walcott, R. H., 1994.
 Walker, B. E., 2950.
 Walker, T. L., 540, 1802, 2732.
 Walkom, A. B., 2290.
 Wallace, J. P., 2055.
 Wallén, A., 2576.
 Wallerant, F., 3077.
 Walther, Johannes, 442, 1262.
 Walther, Karl, 2676, 2778.
 Wanderer, Karl, 2394.
 Wang, Chung Yu, 252, 689a.
 Wanner, J., 650, 985, 2678.
 Ward, Freeman, 2497.
 Ward, John, 1061, 1062.
 Ward, L. K., 2483, 2484, 2485, 2651, 2687.
 Ward, R. De C., 709a.
 Waring, C. A., 594, 602.
 Warman, P. C., 89, 89a, 3203.
 Washburne, C. W., 2986.
 Washington, H. S., 1505, 2325, 2328a.
 Watelin, J., 1219a.
 Waterschoot van der Gracht, W. A. J. M.
 van, 1836.
 Watson, D. M. S., 756, 2425, 2999.
 Watson, L. W., 2929.
 Watson, T. L., 408, 421, 1005, 1258, 1319,
 2688, 2836, 2837, 2838, 2839, 3033.
 Weaver, C. E., 2859a, 2859b, 2860.
 Webb, E. J. H., 1952.
 Weber, C. A., 2118a.
 Weber, V., 679.
 Wedekind, R., 1310.
 Weeks, F. B., 7, 1239a.
 Wegemann, C. H., 2018, 2915.
 Wehrli, Leo, 754.
 Weidman, Samuel, 2896.
 Weill, Raymond, 1003.
 Weinschenk, E., 93.
 Weisfermel, W., 2501.
 Weld, C. M., 1645.
 Weller, Stuart, 864, 1436, 2721.
 Wells, H. L., 3193.
 Wells, J. W., 307, 1803.
 Welter, O. A., 234, 1833.
 Wendeborn, B. A., 1511a.
 Wenz, Wilhelm, 2089.
 Wepfer, Emil, 235.
 Werenskiöld, W., 1980.
 Westergard, A. H., 2722.
 Wetzel, Walter, 2887.
 Wheeler, H. A., 706.
 Wheeler, H. L., 1646.
 Wheeler, W. M., 2938.
 Whitaker, William, 1063, 1064, 1065, 1066,
 1067.
 Whitbeck, R. H., 2897.
 White, A. V., 617.
 White, C. A., 3158, 3182.
 White, David, 1533, 1593, 3123.
 White, I. C., 514.
 White, T. G., 1677.
 Whiteaves, J. F., 1829.
 Whitelaw, O. A. L., 2830, 2831.
 Whitlock, H. P., 568, 1263, 1910.
 Whitney, F. L., 2672a.
 Wichmann, Arthur, 976, 1509.
 Wichmann, Ricardo, 2104.
 Wieland, G. R., 887, 888, 889, 1532, 2310,
 2740, 2741.
 Wilckens, Otto, 190, 191, 192, 193, 861,
 1822, 1953, 2105, 2640, 3005.
 Wilcockson, W. H., 2728.
 Wilder, F. A., 3307.
 Wilkinson, S. B., 1442a, 2425a.
 Williams, H. S., 919.
 Williams, M. Y., 1985, 2035, 3015.
 Williamson, W. C., 3304.
 Willing, H., 201.
 Willis, Bailey, 1962, 2063, 3225.
 Williston, S. W., 2186, 3119, 3173.
 Willmott, A. B., 624.
 Wilman, M., 2473.
 Wilser, J. L., 395.
 Wilson, A. W. G., 625, 1678, 2036, 2037,
 2218.
 Wilson, E. D., 291.
 Wilson, E. M., 2014.
 Wilson, H. E., 864a.
 Wilson, J. H., 1679.
 Wilson, M. E., 619, 2038, 2281, 2282, 2283.
 Wilson, R. C., 2209b.
 Wiman, Carl, 418, 503, 913, 1333, 1400, 1401,
 2311, 2546, 2577.
 Winchell, A. N., 1817.
 Winchell, N. H., 1639, 3068.
 Winchester, D. E., 2015a, 2498.
 Windhausen, Anselmo, 284, 285, 2480.

- Winkler, Artur, 194, 387.
Winstanley, J. B., 2056a.
Winton, W. M., 2666.
Wiseman, W. R. Baldwin-, *see* Baldwin-
Wiseman, W. R.
Witte, Lutz, 2106.
Wittenburg, Paul v., 76, 388.
Wittich, E., 940.
Wodiska, Julius, 2224.
Woldrich, Josef, 474, 1394.
Wolfer, Otto, 553.
Wolff, Ferdinand von, 683, 2851, 3118.
Wolff, J. E., 3243.
Wolff, Wilhelm, 3057.
Wollemann, A., 1796.
Wong, Wen-Hao, 2203.
Wood, B. D., 2862, 2864, 3055.
Wood, E. M. R., 1328.
Wood, Elvira, 865, 1235.
Wood, G. M., 1740.
Wood, H. W., 1427c.
Wood, K. H., 1965.
Wood-Jones, F., 817.
Woodman, J. E., 1680, 1986, 1987, 1988, 1989.
Woods, Henry, 1558, 2094.
Woodward, A. S., 1125, 1126, 1425, 2818.
Woodward, B. B., 1786, 2993.
Woodward, E. S., 38.
Woodward, H. B., 1068, 1068a, 1263a, 3039, 3205.
Woodward, H. P., 2166, 2879.
Woodward, Henry, 38, 3089.
Woodworth, J. B., 515, 684, 1510, 1681, 1854, 1911, 1912, 3103, 3262.
Woolnough, W. G., 1098.
Woolsey, L. H., 755, 2840.
Worcester, P. G., 775, 781, 800, 1804.
Worobieff, V. J., 2689.
Worrell, S. H., 740.
Wrathall, L. L., 2486.
Wray, D. A., 1823.
Wright, A. W., 3245.
Wright, C. L., 516, 517, 518.
Wright, C. W., 127.
Wright, F. E., 127, 564, 619.
Wright, G. F., 1291, 3307, 3308.
Wright, W., 45.
Wülfing, E. A., 2148, 3222.
Wunder, M., 2123.
Wunstorff, Wilhelm, 236.
Wyer, S. S., 761.
Wyman, Jeffries, 3058.
Wyrouboff, G., 2947, 3016, 3209, 3236.
Yabe, H., 671, 837, 1551.
Yakowlew, N., 504, 505.
Yale, C. G., 480, 606.
Yeates, W. S., 707.
Young, G. A., 619, 1851.
Young, G. W., 45.
Zaccagna, Dominico, 1569b.
Zäntini, Willy, 2154.
Zallessky, M., 2456.
Zalinski, E. R., 2736.
Zambonini, F., 3260.
Zanen, J. P., 2119.
Zárate, J. C., 2379a.
Zeiller, R., 19, 635, 1219b, 2074, 3229.
Ziegler, Victor, 2499.
Ziervogel, H., 242.
Zeise, O., 2405.
Zeller, Friedrich, 443.
Zimányi, K., 253.
Zimmermann, Ernst, 636, 1277, 2380.
Zirkel, Ferdinand, 2149.
Zittel, K. A. von, 2095, 2096.
Zuber, Rudolf, 1426.
Zyndel, F., 195.

Publications of the National Research Council

Bulletin Series

Volume 1

- Number 1.** The national importance of scientific and industrial research. By George Ellery Hale and others. October, 1919. Pages 43. Price \$0.50.
- Number 2.** Research laboratories in industrial establishments of the United States of America. Compiled by Alfred D. Flinn. March, 1920. Pages 85. Price \$1.00. [Out of print. See Number 16.]
- Number 3.** Periodical bibliographies and abstracts for the scientific and technological journals of the world. Compiled by Ruth Cobb. June, 1920. Pages 24. Price \$0.40.
- Number 4.** North American forest research. Compiled by the Committee on American Forest Research, Society of American Foresters. August, 1920. Pages 146. Price \$2.00.
- Number 5.** The quantum theory. By Edwin Plimpton Adams. October, 1920. Pages 81. Price \$1.00. [Out of print.]
- Number 6.** Data relating to X-ray spectra. By William Duane. November, 1920. Pages 26. Price \$0.50.
- Number 7.** Intensity of emission of X-rays and their reflection from crystals. By Bergen Davis. Problems of X-ray emission. By David L. Webster. December, 1920. Pages 47. Price \$0.60.
- Number 8.** Intellectual and educational status of the medical profession as represented in the United States Army. By Margaret V. Cobb and Robert M. Yerkes. February, 1921. Pages 76. Price \$1.00.

Volume 2

- Number 9.** Funds available in 1920 in the United States of America for the encouragement of scientific research. Compiled by Callie Hull. March, 1921. Pages 81. Price \$1.00.
- Number 10.** Report on photo-electricity including ionizing and radiating potentials and related effects. By Arthur Llewelyn Hughes. April, 1921. Pages 87. Price \$1.00.
- Number 11.** The scale of the universe. Part I by Harlow Shapley. Part II by Heber D. Curtis. May, 1921. Pages 47. Price \$0.60.
- Number 12.** Coöperative experiments upon the protein requirements for the growth of cattle. First report of the Subcommittee on Protein Metabolism in Animal Feeding. By Henry Prentiss Armsby, Chairman. June, 1921. Pages 70. Price \$1.00.
- Number 13.** The research activities of departments of the State government of California in relation to the movement for reorganization. By James R. Douglas. June, 1921. Pages 46. Price \$0.60.
- Number 14.** A general survey of the present status of the atomic structure problem. Report of the Committee on Atomic Structure of the National Research Council. By David L. Webster and Leigh Page. July, 1921. Pages 61. Price \$0.75.
- Number 15.** A list of seismologic stations of the world. Compiled by Harry O. Wood. July, 1921. Pages 142. Price \$2.00.

Volume 3

- Number 16.** Research laboratories in industrial establishments of the United States, including consulting research laboratories. Originally compiled by Alfred D. Flinn; revised and enlarged by Ruth Cobb. December, 1921. Pages 135. Price \$2.00.
- Number 17.** Scientific papers presented before the American Geophysical Union at its second annual meeting. March, 1922. Pages 108. Price \$1.50.

Number 18. Theories of magnetism. By members of the Committee on Theories of Magnetism of the National Research Council. A. P. Wills, S. J. Barnett, L. R. Ingersoll, J. Kunz, S. L. Quimby, E. M. Terry, S. R. Williams. August, 1922. Pages 261. Price \$3.00.

Volume 4

Number 19. Celestial mechanics. Report of the Committee on Celestial Mechanics of the National Research Council. E. W. Brown, G. D. Birkoff, A. O. Leuschner, H. N. Russell. September, 1922. Pages 22. Price \$0.40.

Number 20. Secondary radiations produced by X-rays, and some of their applications to physical problems. Arthur H. Compton. October, 1922. Pages 56. Price \$1.00.

Number 21. Highway research in the United States. Results of census by Advisory Board on Highway Research, Division of Engineering, National Research Council, in cooperation with the Bureau of Public Roads, United States Department of Agriculture. William Kendrick Hatt. October, 1922. Pages 102. Price \$1.50.

Number 22. Mechanical aids for the classification of American investigators, with illustrations in the field of psychology. Harold C. Bingham. November, 1922. Pages 50. Price \$0.75.

Number 23. Certain problems in acoustics. Compiled by the Committee on Acoustics, National Research Council. November, 1922. Pages 31. Price \$0.50.

Number 24. Electrodynamics of moving media. Report of the National Research Council Committee on Electrodynamics of Moving Media. W. F. G. Swann, John T. Tate, H. Bateman, and E. H. Kennard. December, 1922. Pages 172. Price \$1.50.

Number 25. Celestial mechanics. A survey of the status of the determination of the general perturbations of the minor planets. Appendix to the report of the Committee on Celestial Mechanics, National Research Council. A. O. Leuschner. December, 1922. Pages 73. Price \$1.00.

Volume 5

Number 26. Cooperation with the federal Government in scientific work. E. W. Allen. December, 1922. Pages 27. Price \$0.50.

Number 27. The present status of visual science. Leonard Thompson Troland. December, 1922. Pages 120. Price \$1.50.

Number 28. Algebraic numbers. Report of the Committee on Algebraic Numbers, National Research Council. L. E. Dickson, H. H. Mitchell, H. S. Vandiver, G. E. Wahlin. February, 1923. Pages 96. Price \$1.50.

Number 29. The status of scientific research in Illinois by state agencies other than the University of Illinois. Leonard D. White. March, 1923. Pages 83. Price \$1.00.

Number 30. Selected topics in the field of luminescence. Ernest Merritt, Edward L. Nichols, C. D. Child. March, 1923. Pages 126. Price \$2.00.

Number 31. The organization and activities of the Committee on Scientific Research of the State Council of Defense of California. T. H. Goodspeed. April, 1923. Pages 43. Price \$0.75.

Volume 6

Number 32. Proceedings of the Second Annual Meeting of the Advisory Board on Highway Research, Division of Engineering, National Research Council. William Kendrick Hatt. May, 1923. Pages 89. Price \$1.25.

Number 33. On the formulation of methods of experimentation in animal production. E. B. Forbes and H. S. Grindley. June, 1923. Pages 54. Price \$1.00.

Number 34. Causes of geographical variations in the influenza epidemic of 1918 in the cities of the United States. A report of the Committee on Atmosphere and Man, of the National Research Council. Ellsworth Huntington, Chairman. July, 1923. Pages 35. Price \$0.75.

Number 35. Apparatus used in highway research projects in the United States. Results of census by Advisory Board on Highway Research, Division of Engineering, National Research Council, in cooperation with the Bureau of Public Roads, United States Department of Agriculture. C. A. Hogentogler. August, 1923. Pages 91. Price \$1.50.

Number 36. Catalogue of published bibliographies in geology, 1896-1920. Compiled by Edward B. Mathews. October, 1923. Pages 228. Price \$2.50.

Orders, accompanied by remittance, should be addressed to

PUBLICATIONS OFFICE
NATIONAL RESEARCH COUNCIL
WASHINGTON, D. C.

Reprint and Circular Series

- Number 1.** Report of the Patent Committee of the National Research Council. Presented for the Committee by L. H. Baekeland, Acting Chairman. February, 1919. Pages 24. Price \$0.30.
- Number 2.** Report of the Psychology Committee of the National Research Council. Presented for the Committee by Robert M. Yerkes, Chairman. March, 1919. Pages 51. Price \$0.60. [Out of print.]
- Number 3.** Refractory materials as a field for research. By Edward W. Washburn. January, 1919. Pages 24. Price \$0.30.
- Number 4.** Industrial research. By Frank B. Jewett. 1918. Pages 16. Price \$0.25.
- Number 5.** Some problems of sidereal astronomy. By Henry Norris Russell. October, 1919. Pages 26. Price \$0.30.
- Number 6.** The development of research in the United States. By James Rowland Angell. November, 1919. Pages 19. Price \$0.25.
- Number 7.** The larger opportunities for research on the relations of solar and terrestrial radiation. By C. G. Abbot. February, 1920. Pages 15. Price \$0.20.
- Number 8.** Science and the industries. By John J. Carty. February, 1920. Pages 16. Price \$0.25.
- Number 9.** A reading list on scientific and industrial research and the service of the chemist to industry. By Clarence Jay West. April, 1920. Pages 45. Price \$0.50.
- Number 10.** Report on the organization of the International Astronomical Union. Presented for the American Section, International Astronomical Union, by W. W. Campbell, Chairman, and Joel Stebbins, Secretary. June, 1920. Pages 48. Price \$0.50.
- Number 11.** A survey of research problems in geophysics. Prepared by Chairmen of Sections of the American Geophysical Union. October, 1920. Pages 57. Price \$0.60.
- Number 12.** Doctorates conferred in the sciences in 1920 by American universities. Compiled by Callie Hull. November, 1920. Pages 9. Price \$0.20. [Out of print.]
- Number 13.** Research problems in colloid chemistry. By Wilder D. Bancroft. January-April, 1921. Pages 54. Price \$0.50. [Out of print.]
- Number 14.** The relation of pure science to industrial research. By John J. Carty. October, 1916. Pages 16. Price \$0.20.
- Number 15.** Researches on modern brisant nitro explosives. By C. F. van Duin and B. C. Roeters van Lennep. Translated by Charles E. Munroe. February, 1920. Pages 35. Price \$0.50.
- Number 16.** The reserves of the Chemical Warfare Service. By Charles H. Herty. February, 1921. Pages 17. Price \$0.25.
- Number 17.** Geology and geography in the United States. By Edward B. Mathews and Homer P. Little. April, 1921. Pages 22. Price \$0.20. [Out of print.]
- Number 18.** Industrial benefits of research. By Charles L. Reese and A. J. Wadhams. February, 1921. Pages 14. Price \$0.25.
- Number 19.** The university and research. By Vernon Kellogg. June, 1921. Pages 10. Price \$0.15.
- Number 20.** Libraries in the District of Columbia. Compiled by W. I. Swanton in coöperation with the Research Information Service of the National Research Council and Special Libraries. June, 1921. Pages 19. Price \$0.25.
- Number 21.** Scientific abstracting. By Gordon S. Fulcher. September, 1921. Pages 15. Price \$0.20.
- Number 22.** The National Research Council. Its services for mining and metallurgy. By Alfred D. Flinn. October, 1921. Pages 7. Price \$0.20.
- Number 23.** American research chemicals. By Clarence J. West. September, 1921. Pages 28. Price \$0.50.
- Number 24.** Organomagnesium compounds in synthetic chemistry: a bibliography of the Grignard reaction 1900-1921. By Clarence J. West and Henry Gilman. January, 1922. Pages 103. Price \$1.50.
- Number 25.** A partial list of the publications of the National Research Council to January 1, 1922. February, 1922. Pages 15. Price \$0.25.

- Number 26.** Doctorates conferred in the sciences by American universities in 1921. Compiled by Callie Hull and Clarence J. West. March, 1922. Pages 20. Price \$0.20.
- Number 27.** List of manuscript bibliographies in geology and geography. Compiled by Homer P. Little. February, 1922. Pages 17. Price \$0.25.
- Number 28.** Investment in chemical education in the United States, 1920-1921. By Clarence J. West and Callie Hull. March, 1922. Pages 3. Price \$0.15.
- Number 29.** Distribution of graduate fellowships and scholarships between the arts and sciences. Compiled by Callie Hull and Clarence J. West. April, 1922. Pages 5. Price \$0.15.
- Number 30.** The first report of the committee on contact catalysis. By Wilder D. Bancroft, chairman. In collaboration with the other members of the committee. April-July, 1922. Pages 43. Price \$0.50.
- Number 31.** The status of "clinical" psychology. By F. L. Wells. January, 1922. Pages 12. Price \$0.20.
- Number 32.** Moments and stresses in slabs. By H. M. Westergaard and W. A. Slater. April, 1922. Pages 124. Price \$1.00.
- Number 33.** Informational needs in science and technology. By Charles L. Reese. May, 1922. Pages 10. Price \$0.20.
- Number 34.** Indexing of scientific articles. By Gordon S. Fulcher. August, 1922. Pages 16. Price \$0.20.
- Number 35.** American research chemicals. First revision. By Clarence J. West. May, 1922. Pages 37. Price \$0.50. [Replaced by Number 44.]
- Number 36.** List of manuscript bibliographies in chemistry and chemical technology. By Clarence J. West and Callie Hull. December, 1922. Pages 17. Price \$0.25.
- Number 37.** Recent geographical work in Europe. By W. L. G. Joerg. July, 1922. Pages 54. Price \$0.50.
- Number 38.** The abstracting and indexing of biological literature. J. R. Schramm. November, 1922. Pages 14. Price \$0.25.
- Number 39.** A national focus of science and research. George Ellery Hale. November, 1922. Pages 16. Price \$0.25.
- Number 40.** The usefulness of analytic abstracts. Gordon S. Fulcher. December, 1922. Pages 6. Price \$0.15.
- Number 41.** List of manuscript bibliographies in astronomy, mathematics, and physics. Clarence J. West and Callie Hull. March, 1923. Pages 14. Price \$0.25.
- Number 42.** Doctorates conferred in the arts and the sciences by American universities, 1921-1922. Clarence J. West and Callie Hull. March, 1923. Pages 14. Price \$0.25.
- Number 43.** Functions of the Division of Geology and Geography of the National Research Council. Nevin M. Fenneman. December, 1922. Pages 7. Price \$0.20.
- Number 44.** Fine and research chemicals. Second revision. Clarence J. West. May, 1923. Pages 45. Price \$0.50.
- Number 45.** List of manuscript bibliographies in the biological sciences. Clarence J. West and Callie Hull. June, 1923. Pages 51. Price \$0.50.
- Number 46.** Problems in the field of animal nutrition. Sub-committee on Animal Nutrition. May, 1923. Pages 9. Price \$0.15.
- Number 47.** A statistical study of tuberculosis mortality in Colorado for the thirteen years 1908 to 1920. Henry Sewall. August, 1923. Pages 33. Price \$0.50.
- Number 48.** Psychological work of the National Research Council. Robert M. Yerkes. November, 1923. Pages 7. Price \$0.20.
- Number 49.** Statement of activities of the National Research Council for the year, July 1, 1922-June 30, 1923. Vernon Kellogg. October, 1923. Pages 16. Price \$0.25.

Orders, accompanied by remittance, should be addressed to

PUBLICATIONS OFFICE
NATIONAL RESEARCH COUNCIL
WASHINGTON, D. C.

The National Research Council

Membership and Organization.—The National Research Council is a cooperative organization of scientific men of America, including also a representation of men of affairs interested in engineering and industry and in the "pure" science upon which the applied science used in these activities depends. Its membership is largely composed of accredited representatives of about seventy-five national scientific and technical societies. Its essential purpose is the promotion of scientific research and of the application and dissemination of scientific knowledge for the benefit of the national strength and well-being.

The Council was established at the request of the President of the United States, by the National Academy of Sciences, under its Congressional charter to coordinate the research facilities of the country for work on war problems involving scientific knowledge. In 1918, by Executive Order, it was reorganized as a permanent body. Although partly supported during the war period by the government and primarily devoted at that time to its activities, the Council now derives all of its financial support from other than governmental sources and is entirely controlled by its own representatively selected membership and democratically chosen officers. It maintains, however, a close cooperative relation with government scientific bureaus in connection with various activities.

Research Fellowships

The Council maintains, with the financial assistance of the Rockefeller Foundation and General Education Board—to the amount of one and one-third million dollars—three series of post-doctorate research fellowships.

Fellowships in Physics and Chemistry.—Candidates must already have the doctor's degree or equivalent qualifications and must have demonstrated a high order of ability in research. Address applications to Executive Secretary, Physical and Chemical Fellowships Board, National Research Council, Washington, D. C.

Fellowships in Medicine.—Both graduates in medicine and doctors of philosophy in one of the sciences of medicine, or in physics, chemistry, or biology, are eligible for these fellowships. Address applications to Chairman, Medical Fellowships Board, National Research Council, Washington, D. C.

Fellowships in Biology (including Psychology and Anthropology).—Candidates must already have the doctor's degree or equivalent qualifications and must have demonstrated a high order of ability in research. Address applications to Chairman, Biological Fellowships Board, National Research Council, Washington, D. C.

"THERE IS MORE UNKNOWN THAN KNOWN," SAYS THE SCIENTIST, "BUT THERE IS MUCH KNOWN THAT IS UNKNOWN BY MANY," SAYS THE INFORMATION SERVICE.

Knowledge is often hidden and must be sought in strange places. Without a key to the sources of knowledge, the seeker searches in vain.

RESEARCH INFORMATION SERVICE

SPECIALIZES IN SOURCES

Its aim is to aid research workers everywhere; to refer the worker to the source when available, when not, to bring the source to the inquirer by letter, abstract, or photostat. From its vantage point of location and organization it has unusual access to international as well as national information.

Its aim is to aid. Its ambition is wider usefulness.

THE RESOURCES OF THE SERVICE ARE AT THE DISPOSAL OF THOSE WHO ARE INTERESTED IN THE INCREASE OF KNOWLEDGE AND THE FURTHERANCE OF RESEARCH IN THE NATURAL SCIENCES AND THEIR TECHNOLOGIES.

RESEARCH INFORMATION SERVICE
NATIONAL RESEARCH COUNCIL
WASHINGTON, D. C.